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ABSTRACT

The results of a 1976 study, "Measures of Institutional Goal Achievement" (MIGA), based on a survey of 1,150 faculty, administrators, and trustees at 45 American colleges and universities are presented, and implications for the work of college planners and administrators are assessed. Respondents, answering questions about goal priorities and measure appropriateness, largely agreed on what their institutions' goals should be and on the criteria for assessing progress toward those goals. Most were skeptical about the value of the measures of productivity most widely used now such as student-faculty ratios and expenditure patterns, preferring objective measures pertaining to more affective impacts including satisfaction, growth, and value added. Some implications of these responses are: (1) goal assessment should take effectiveness as well as efficiency into account; (2) reliance on efficiency-oriented measures will contribute to the emergence of incentive systems antithetic to the purposes of higher education; and (3) trustees appear inadequately informed to provide direction to goal setting and evaluation. Much of the information obtained from the study is organized in tables. Appendices contain a list of institutions surveyed and a copy of the MIGA questionnaire, and a bibliography is included. (JMD)

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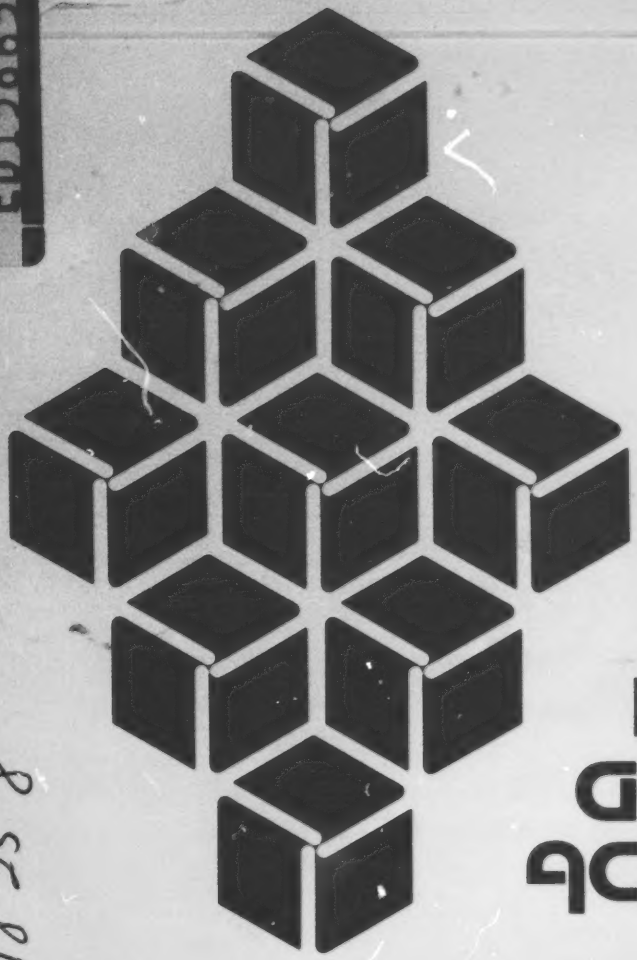

MEASURES OF INSTITUTIONAL GOAL ACHIEVEMENT

HE 010 358

An NCHEMS Research Report
National Center for Higher Education Management Systems

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MEASURES OF INSTITUTIONAL GOAL ACHIEVEMENT

by

Leonard Romney

1978

NATIONAL CENTER FOR HIGHER EDUCATION MANAGEMENT SYSTEMS
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There is no middle road for the spirit.
We must call for the best or live with the worst.

John Gardner

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Preface

This publication was prepared at the National Center for Higher Education Management Systems to make widely available, in lay terms, the results of a more comprehensive but more technical study that I completed in 1976. For his guidance and advice during the course of that earlier study, I am greatly indebted to Dr. Steven A. Romine, now Professor Emeritus at the University of Colorado. The present document has benefited considerably from the constructive comments made by several of my colleagues at NCHEMS who reviewed my draft. I am especially indebted to Dr. Wayne Kirschling, who provided invaluable perspective, encouragement, and ideas; to Dr. Sidney Micek, whose authoritative advice about outcomes management was indispensable; and to William Johnston, who conscientiously edited the study. I am most grateful, too, to Kay Vaughan and Linda Priddy, who patiently typed the several versions of the manuscript, and to Grant Duncan, who contributed deft graphics.

I also want to thank the hundreds of faculty members, administrators, and trustees who participated in the study, particularly all those who facilitated my work by acting as coordinators at the many institutions involved in the survey.

CHAPTER ONE

Introduction

This report describes the results of a study, "Institutional Goal Achievement: Measures of Progress,"[1] conducted by the author in 1976 at the National Center for Higher Education Management Systems (NCHEMS). It also assesses the implications of that study for the work of planners and administrators in colleges and universities. The study was based on a survey of 1,150 persons—faculty, administrators, and trustees at 45 American colleges and universities of six different types. The survey posed to respondents a long list of questions about what their institutions' goals should be and how progress toward those goals should be assessed. The overall response rate was a surprisingly high 74 percent. The results were perhaps equally surprising: analysis of the responses indicates that faculty, administrators, and trustees largely agree on what their institutions' goals should be. Moreover, they substantially agree on what the criteria should be for assessing progress toward those goals. And most are skeptical about the value of the measures of productivity most widely used at present.

The significance of these shared essential attitudes is not fully apparent if considered solely in the context of an institution's internal effort to establish goals and to determine how to measure its degree of success in meeting them. The apparent existence of a broad, albeit tacit, consensus with respect to these matters among the three principal control groups on campus has large implications for at least two issues of insistent import in higher education—accountability and productivity. These issues, which are paramount in the minds of many legislators and other public representatives involved in funding decisions, are mired in a bog of misapplied and inadequate information. The information problems relate in great part to the measurement of the outcomes of higher education—the effective expression of the goals of higher education in the personal lives and the social behavior of those educated. Assessment of outcomes, on which the assessment of productivity should be based, and measurement of goal progress are the two sides of one coin. And an outcomes-oriented approach to productivity must recognize that when goals for higher education are formulated, upper limits are being established for the potential value of outcomes, however imperfectly or incompletely those outcomes may be measured. The notion that reach should exceed grasp certainly is more romantic than realistic in the present socioeconomic atmosphere of expanding demand and tight money. Yet it is equally certain that grasp cannot exceed reach. High purpose is a matter of both elevation and direction.

Much, if not all, of the effort devoted by a college or university to the attainment of high purposes is bound to be questioned by funders who either do not appreciate the worth of the stated goals or, while admitting their worth, do not see that they are being attained. Even a goal of self-evidential high value may be rejected by potential beneficiaries, if they believe that the value involved is too subjective, too qualitative, to be credibly demonstrated. They may prefer to see resources invested in outcomes more mundane and intrinsically less valuable, but nonetheless objectively measurable.

[1] Ph.D. dissertation, University of Colorado, 1976; referred to hereafter in this report as the MIGA (Measures of Institutional Goal Achievement) Study.

Such a choice was made by many of the constituents of higher education in favor of career-specific curricula instead of the once-popular study of the humanities and other liberal arts. (That trend now seems attenuated, however, with some schools reverting to traditional requirements.) Those favoring emphasis on career preparation can calculate with some confidence the dollar value of the outcomes of an education in engineering or business administration. They are not willing to trade off the objective, countable benefits of job preparation for the subjective, intangible benefits of general intellectual development, even if they respect and want it. How, then, is an institution to protect a commitment to liberal education from the erosive force of this matter-of-fact trend in student program preferences?

One way might be to find objective evidence supporting the time-honored contention that a liberal education can open the mind and spirit to a wide horizon of rewarding experiences throughout life. The difficulty of obtaining that evidence is obvious. But there may be no other effective way to stop the erosion. The first step is to agree on a set of outcomes measures that will be acceptable to both sides in the accountability process—particularly those who make the basic funding decisions. Increasingly, they are state-level officials and legislators.

With respect to these primary funders, the need is intensifying for accountability mechanisms that will more fully and equitably represent the total contributions of higher education to individuals, organizations, and the world at large. This is because state governments by and large are habituated to evaluating the productivity of higher education principally in terms of efficiency. In turn, efficiency regularly is gauged in terms of credit hours produced, student-faculty ratios, and similar formulations, all of which are essentially manifestations of unit-cost economics. Unit cost is a most serviceable indicator of efficiency in industry, because the unit of production is precisely defined and its uses, quality, and market value are objectively determinable. For all products that can be definitely characterized and valued, unit cost is understandably the cardinal indicator of productivity.

Productivity is best defined as the ratio of value produced to the value of resources consumed. Clearly, productivity involves not only efficiency but effectiveness: low unit cost is of no avail if the unit has no appreciable quality. In industry, the level of quality wanted in the marketplace is measurable to a relatively fine point, and the requisite quality control can be successfully imposed on the production process. It is understood that any reduction in unit cost must be made without compromising product effectiveness.

But that is far from being the case in the educational market place. If the credit hour is taken as the unit of production, how is its value to be determined? Harold Hodgkinson, former Director of the National Institute of Education, once remarked: "no one has ever felt, smelled, or heard, or seen a credit hour. A credit hour is simply a measure of time spent in a place of instruction in the presence of some instructional medium."

Calculating the cost of producing a credit hour tells you nothing, in itself, about the productivity of the institution where it was produced. The *value* of the credit hour must also be calculated. A good many legislators are quite willing to admit that the heavily numerical, efficiency-biased accountability perspective is inappropriate to higher education. But when they ask for alternative credible ways of assessing productivity, the institutional representative can do little more than appeal to tradition and the impressionistic convictions of educators that they are conferring large if only dimly visible benefits on their students and sponsors.

Reports on coherent attempts to assess the impacts of college education began to appear in the literature in the 1930s, and the number of these undertakings has steadily increased. Yet Kenneth Feldman concluded in 1970 that "our knowledge is not very great given the immense amount of effort that has been exerted in research, analysis, and the discussion of college effects." The art of measuring the outcomes of higher education remains in a distinctly primitive state. We have done almost no research to chart the maze of differences in value that various external constituencies of higher education assign to the range of objectives that might be agreed to within the enterprise. We do not know how to measure the quality of instructional outcomes, or research outcomes, or community-service outcomes. We must learn yet how to distinguish between process quality and outcomes quality and learn how they are related. And as we seek to improve the state of the art of outcomes measurement, we have to concede the dolorous possibility that the outcomes of higher education simply cannot be objectively assessed to any meaningful extent. This is assuredly a high-risk research area.

In the face of all that we have not done to improve the accountability process, the positive indications offered by the MIGA study are small increments indeed. They are, nonetheless, increments. They do strongly suggest that more attention should be given to assessing productivity in higher education in terms of impact and satisfaction, as well as efficiency. The measures that the study respondents judged to be appropriate provide an empirically substantiated base for such a shift.

These implications for outcomes measurement that the author sees in the MIGA study should not be allowed to obscure the fact that the study itself concentrated as much on respondents' choices of goal areas for their institutions as it did on their choices of appropriate measures of progress. Goal setting is increasingly recognized today as an indispensable aspect of educational administration. But only lately has it been so regarded. The literature indicates that most studies and analyses have attempted to compile lists of the goals espoused by colleges and universities, rather than examining the process by which they were identified and the uses to which goal statements have been put.

Nevitt Sanford (1962) allowed that the goals of higher education "ought to be the object of continuing study." Perhaps the most important effort to identify institutional goals was the study conducted by Gross and Grambsch (1968). They used a survey containing 47 specific goal

statements to assess faculty and administrator goal preferences in 68 doctoral-level institutions. Contemporaneous efforts included a study of the goal preferences of academic deans in different types of institutions (Nash 1968) and a similar survey of the preferences of faculty and administrators in small colleges (Chickering 1968). The Danforth Foundation (1969) sponsored an application of a revised Gross and Grambsch survey instrument in private liberal-arts colleges, and Uhl (1971) employed the Delphi technique to extend the results of the Danforth study and its predecessor. At the Educational Testing Service, Peterson (1971a) developed an instrument for supporting institutional goal identification in 20 different goal areas.

It is fair to say, then, that specification and clear identification of goals is regarded as a matter "central to the study of organizations" (Lindeman 1975) and regularly perceived as an essential concern in the effective administration of higher education. The present general view is that put forward by Perrow (1970, p. 173):

> It is possible for an organization to lack important goals, or to lack a distinctive character. Without firm goals, such organizations are subject to vagrant pressures from within and without, even as they may grow and prosper. There is, of course, a direction of effort, but it may be changeable, vulnerable, and not firmly anchored in the organizational structure. While this gives the organization flexibility, it also provides few resources for unusual effort of a concerted kind. Organizations are tools; system, product, and derived goals shape the form of the tool, indicating for what it can or cannot be used. An organization with weakly held goals is a poor tool for accomplishing ends, so that it may be shaped by opportunistic forces in the environment. Thus, goals represent a positive resource to organizations.

By comparison, little attention has been paid to the uses of goals. Peterson (1970) listed these possible uses of institutional goals: (1) as fundamentals of policy, (2) as general decision guides, (3) in planning, (4) in management-information systems, (5) in evaluation of the extent of goal achievements, and (6) in implementing accountability. Peterson and Vail (1973) reiterated the value of goals in responding to demands for evidence of institutional effectiveness, and Conrad (1974) set forth the following set of purposes that institutional goals may serve:

- As standards to measure success
- As sources of institutional legitimacy
- As expressed definitions of institutional needs and priorities
- As definitions of the outputs of the institution
- As clarifications of institutional constituencies
- As a definition of the relationship of the institution to society

Fano (1973) said that measures of a college's environment and outcomes should be "viewed in terms of the expected . . . effectiveness in the achievement of goals and objectives." This points up the relationship between goals and outcomes, between goal setting and evaluation. It makes little sense to state a goal without being prepared to demonstrate progress toward its achievement. And in addressing the concepts of goals and outcomes, it should be recognized that the limits of each become mutual constraints when the two concepts are addressed in concert, as they were in the MIGA study. The most debilitating problems besetting such undertakings are these:

- The inability to clearly identify and clearly state organizational goals
- The inability to precisely define a particular outcome of postsecondary education
- The confusion that attends attempts to define an outcome, because what some regard as an outcome, others regard as an input
- The lack of a comprehensive array of valid, reliable measurement techniques
- Overemphasis on outcome measures that assess quantitative aspects of organizational performance, rather than quality of performance
- Difficulties encountered because of the juxtaposition of the different values, expectations, and perspectives characterizing the various educational constituencies
- Inability to attribute specific outcomes to specific programs, activities, or goals
- The existence of activities that produce multiple outcomes as well as the existence of single outcomes that are produced by multiple activities

The MIGA study dealt explicitly with the need to link goals and measures of outcomes. In a more limited way, it addressed the problem of resolving the differences in values, perceptions, expectations, and needs that proliferate in higher education. The design of the MIGA study is indebted to a model proposed by Brown (1970) and to studies conducted by Micek and Arney (1973) and Kinnison (1975).

Brown's model for a survey instrument contained:

- Twenty general statements of institutional goals
- One to four possible measures of progress for each of the 20 goal statements
- Suggested weights that faculty and students might wish to place on the various goals and measures
- Procedures for incorporating those weights and preferences into a goal-preference index

But Brown's model did not include a tested list of goals, or a comprehensive list of measures for each goal, or an actual assessment of the preferences of various institutional constituencies for the measures and goals listed.

Kinnison's survey attacked the problem from another angle, by determining what the general

state-level goals were for community colleges and what measures were required by state agencies to indicate institutional status relative to these goals. Respondents, representing 53 community colleges in 30 states, also were asked to identify the measures they found most acceptable. Micek and Arney compiled the perceptions of state and institutional decisionmakers regarding their needs for different outcomes measures as well as the availability of the needed information.

In the MIGA study, 74 percent of the 1,150 members of the survey population returned the questionnaire—82 percent of the administrators, 74 percent of the faculty, and 48 percent of the trustees. Faculty and trustees were selected at random; administrators were selected so as to be representative of 13 different kinds of responsibility, ranging from chief executive officer to department head. Six kinds of institutions were represented: universities granting doctoral degrees, both public and private; comprehensive universities and colleges, both public and private; liberal-arts colleges; and two-year colleges and institutes.

The 20 broadly stated institutional goal areas that respondents were asked to rate with respect to appropriateness for their institution were derived from an institutional goals inventory developed by the Educational Testing Service (ETS). Thirteen are designated by ETS as outcome-goal areas and the remaining seven as process-goal areas. The groups of possible measures of progress listed with each of the 20 goal areas, whose relative appropriateness also was rated by respondents, were developed by the author and colleagues at the National Center for Higher Education Management Systems, by staff of the Western Interstate Commission for Higher Education (WICHE) and the Higher Education Center at the University of Colorado, and by members of an NCHEMS review panel. Details of the findings are presented in chapter 3. In highly summarized form, these are the three general findings:

- Goal and measure preferences generally varied across institutional types, not among trustees, faculty, and administrators
- Traditional process measures of institutional performance, such as student-faculty ratios and expenditure patterns, were rejected by almost all categories of respondents
- Objective measures pertaining to such impacts of higher education as satisfaction, growth, and value added were most preferred by the study population

Figure 1 displays the pattern of preferences for institutional goals expressed by respondents associated with each of the six types of institutions included in the study. The seven goals rated most highly by each constituency are circled.

The agreement on goal areas is most striking at universities offering doctoral programs, though some differences exist. For example, trustees rated vocational preparation and accountability/efficiency among the top seven goal areas, but administrators and faculty did not. In general, however, trustees joined administrators and faculty in emphasizing the traditional roles of these institutions—research and the pursuit of the full academic/intellectual life.

FIGURE 1

RELATIVE APPROPRIATENESS OF 20 INSTITUTIONAL GOAL AREAS AS RANKED BY TRUSTEES (T), ADMINISTRATORS (A), AND FACULTY (F) AT SIX KINDS OF COLLEGES AND UNIVERSITIES

Ranking Scale: 1 = most appropriate . . . 20 = least appropriate
O indicates top-seven ranking

Goal Areas (in arbitrary order)	Doctorate-Granting Universities						Comprehensive Universities						Liberal Arts Colleges			Two-Year Colleges		
	Public			Private			Public			Private								
	T	A	F	T	A	F	T	A	F	T	A	F	T	A	F	T	A	F
A. Academic Development	(2)	(1)	(1)	(4)	(1)	(1)	4	(1)	2	(1)	2	2	2	(1)	(3)	13	(7)	9
B. Intellectual Orientation	(6)	(3)	2	13	(2)	(2)	11	3	4	4	(1)	3	(5)	(3)	2	14	11	10
C. Individual Personal Development	12	11	10	(3)	(3)	10	13	9	12	3	4	7	(1)	5	5	(6)	8	(7)
D. Humanism/ Altruism	11	14	9	(2)	10	12	17	13	9	10	10	10	4	(4)	(6)	10	14	13
E. Cultural/ Aesthetic Awareness	14	13	11	12	12	9	15	12	14	16	11	13	12	(7)	10	16	15	15
F. Traditional Religiousness	20	20	20	11	20	20	20	20	20	19	20	20	11	18	19	18	18	18
G. Vocational Preparation	(5)	8	12	10	11	11	9	7	10	(5)	9	9	8	13	13	(1)	(2)	(1)
H. Advanced Training	10	(4)	(3)	8	(7)	(3)	16	15	13	12	14	15	20	20	20	20	20	20
I. Research	(4)	(2)	(4)	14	(5)	(8)	12	16	15	15	16	12	19	19	17	19	19	19
J. Meeting Local Needs	16	15	15	16	16	14	(2)	(6)	11	11	13	14	(6)	12	11	(2)	(1)	(2)
K. Public Service	15	10	14	19	15	16	(3)	14	8	9	15	16	15	17	15	8	13	11
L. Social Egalitarianism	17	18	19	17	19	19	19	17	17	20	19	19	16	18	18	(3)	(5)	(3)
M. Social Criticism/ Activism	19	19	17	20	17	17	18	19	16	18	18	17	17	15	16	15	17	16
N. Freedom	9	(7)	(5)	(7)	(6)	(6)	14	8	(3)	14	(5)	(6)	18	9	8	11	10	8
O. Democratic Governance	13	16	13	15	13	13	(7)	10	(7)	13	12	8	13	11	(7)	(7)	9	(6)
P. Community	(1)	(5)	(7)	(1)	(4)	(4)	(1)	(2)	(1)	(2)	(3)	(1)	(3)	(2)	(1)	(5)	(3)	(4)
Q. Intellectual/ Aesthetic Environment	(3)	(6)	(6)	9	8	(5)	(6)	(4)	(5)	(7)	(7)	(4)	(7)	(6)	(4)	12	12	14
R. Innovative Climate		12	8	(6)	9	(7)	8	(5)	(6)	8	(6)	(5)	10	8	9	9	(5)	(7)
S. Off-Campus Learning	18	17	18	18	18	18	10	18	19	17	17	18	14	14	14	17	16	16
T. Accountability/ Efficiency	(7)	9	16	(5)	14	15	(5)	11	18	(6)	8	11	9	10	12	(4)	(6)	12

For Preferred Goal Areas, Measures of Progress Most Generally Acceptable to Respondents

Goal Area	Measure
Academic Development	Student ability to apply knowledge
Intellectual Orientation	Continuing active intellectual involvement of former students in other than formal, advanced study
Individual Personal Development	Course offerings and institutional opportunities pertaining to the development of individual goals, values, and personal growth
Humanism/Altruism	Students and/or former students expressing concern for human welfare and well being
Vocational Preparation	Employer satisfaction with former students' vocational or professional training
Advanced Training	Scholarly works produced by graduate students and/or former graduate students considered suitable for publication
Research	Basic research publications or other results of scholarly effort produced by students or faculty members during the past year
Meeting Local Needs	Evaluations and perceptions of members of the community regarding the quality of institutional services available to them
Social Egalitarianism	Existence of special courses and programs to meet the needs of particular groups of students
Freedom	Institutional policies and procedures developed to protect the exercise of academic freedom by faculty and students
Democratic Governance	Attendance and participation by faculty in the faculty senate or similar body
Community	Faculty and staff perceptions and evaluations of internal morale
Intellectual/Aesthetic Environment	Student and/or faculty attendance at cultural activities sponsored by the institution
Innovative Climate	Impacts of modifications made in courses and programs

At liberal-arts and two-year colleges, the goals generally preferred by all respondents center on individual development—from an intellectual/academic perspective at liberal-arts colleges and in terms of vocational preparation and social egalitarianism at the two-year colleges.

Regarding most appropriate measures of goal progress, there again was broad agreement among trustees, administrators, and faculty. If one were to compile the unduplicated set of highest-rated goal areas and then select the measure of progress most preferred in each highly rated goal area, this would be the result:

Goal Area	Measure
Academic Development	Student ability to apply knowledge
Intellectual Orientation	Continuing active intellectual involvement of former students in other than formal, advanced study
Individual Personal Development	Course offerings and institutional opportunities pertaining to the development of individual goals, values, and personal growth
Humanism/ Altruism	Students and/or former students expressing concern for human welfare and well-being
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Intellectual/ Aesthetic Environment	Student and/or faculty attendance at cultural activities sponsored by the institution
Innovative Climate	Impacts of modifications made in courses and programs

Administrator ratings differed significantly from those of faculty with respect to only five measures out of the 125 considered. Trustee ratings differed significantly from those of administrators in only two instances, and from faculty ratings in but one instance.

None of the commonly used productivity measures, such as enrollment totals, number of degrees granted, student-faculty ratios, and grade-point averages, was rated as highly appropriate by any of the three groups. In fact, the measures now in use tend to conform more in orientation and substance to those rejected by the survey participants.

Implications of the Findings

Conclusions drawn from the findings of the study are set forth in chapter 4. The implications of the results of the MIGA study may be summarized as follows:

- Goal assessment (and thus evidence of productivity and accountability) should take into account effectiveness as well as efficiency
- Continued reliance on traditional, efficiency-oriented measures will contribute to the emergence of incentive systems antithetic to the best purposes and interests of postsecondary education
- Economy can be achieved in information collection if sufficient resources are invested to discover information needs and preferences
- Consensus regarding institutional goals and assessment of goal progress is possible and should be pursued as a way to increase productivity
- Trustees appear inadequately informed to provide direction to institutional goal setting and evaluation activities
- The views of other constituents of higher education—students, state-level agencies, members of the general public, and others—regarding appropriate goals and measures of progress should be investigated

CHAPTER TWO

Design of the Study

Study Participants

The population for the MIGA study comprised 133 trustees, 417 administrators, and 600 faculty at 45 colleges and universities across the country. Six kinds of institutions were represented: public universities granting the doctorate, (7); private universities granting the doctorate, (3); public comprehensive universities and colleges, (9); private comprehensive universities and colleges, (4); liberal arts colleges, (12); and two-year colleges and institutes (10). (See appendix A for a complete listing of the institutions that participated in the study.) The institutions were chosen at random, as were the trustees and faculty members asked to participate in the study. Administrators, however, were selected so as to achieve representation of all of the following functions:

- Chief Executive Officer
- Chief Academic Officer
- Chief Financial Officer
- Chief Student Services Officer
- Dean of the Graduate School
- Dean of Arts and Sciences (or General Studies or Transfer Programs)
- Dean of Professional Schools (Law, Business, or Occupational Programs)
- Head of Physical Sciences
- Head of Social Sciences
- Head of Humanities
- Head of Communication Arts
- Director of Institutional Research or Analytical Studies
- Chief Planning Officer

Questionnaire

The MIGA survey instrument (reproduced in appendix B) contained two sections. The first sought demographic and occupational information about the respondent. The second asked the respondents to rate the appropriateness, for their institutions, of 20 broadly defined institutional goal areas and, for each goal area selected, to select an appropriate measure of progress. The list of goal areas, derived from the Institutional Goals Inventory (IGI) developed by and used with the permission of the Educational Testing Service (ETS), consisted of 13 output goal areas and 7 process or support goal areas. With each goal area, the questionnaire listed several items of information that might serve as measures to indicate progress toward the achievement of the stated goal. Some were taken from a tentative list of measures of postsecondary-education outcomes and educational environment that had been developed at the National Center for Higher Education Management Systems in 1973 by Sidney Micek and Robert Wallhaus. Additional measures were suggested by staff at NCHEMS, the Western Interstate Commision for Higher Education, and the Higher Education Center at the University of Colorado. A panel of experts, selected by the author and colleagues at NCHEMS, reviewed and supplemented the list. The number of measures of progress associated with goal areas varied from 4 to 11. In all, respondents were asked to rate 125 measures.

Instructions and Scoring

To complete the MIGA questionnaire, respondents were asked to rate the degree to which each goal area *should be* a goal of their institution. Secondly, respondents were directed to rate the degree to which each item of information (or measure of progress) indicated was capable of indicating progress toward the achievement of the goal. Scales for each rating consisted of the following six steps: inappropriate, low, below average, average, above average, and high. When the questionnaires were scored, these categories were assigned numerical values of one to six, respectively. (Details of the development of the questionnaire will be found in Romney 1976, pp. 44-55.)

Research Design and Analytic Procedures

The research design consisted of a three-by-six, fixed-effects model (Kirk 1968): type of respondent and type of institution were the independent variables and the 125 measures of progress and 20 goal areas were the dependent variables. The design allowed conclusions to be drawn about the views of the three different types of respondents and six types of institutions. Thus responses of the participants could be divided into at least[1] 18 different categories (such as trustees at two-year colleges or faculty at public doctorate-level universities) and aggregated in any combination (for example, trustees at all types of institutions; administrators at private institutions, both comprehensive and doctorate level).

Statistical analysis of the survey responses employed standard techniques. The significance of mean responses to the dependent variables in the various categories was determined by a two-way ANOVA procedure: significant differences in main effects (type of respondent and type of institution) and interactions (type of respondent by type of institution) were checked at the $\alpha \leq .01$ level. Main effects and interactions that exhibited significant differences were further analyzed with the Newman-Keuls multiple-comparison procedure (Kirk 1968), in order to discover which factors differed. Complex comparisons were not investigated. Because of the relatively large number of possible differences, the comparisons also were tested at the $\alpha \leq .01$ level. The Newman-Keuls procedure is designed for use with cells of equal size, but in the MIGA survey, the percentages of respondents in the various categories differed. The Newman-Keuls procedure was modified, therefore, to accommodate unequal frequencies (Kramer 1956). Additional descriptive statistics were employed to enhance the presentation and interpretation of the data.

Response Rates

The MIGA survey was conducted in 1976 during the summer months, when, presumably, many faculty were away from campus and a good

[1]More detailed categorizations based on sex, years at the institution, discipline, rank, and administrative title are also possible. Analysis at this level of detail will be performed at a later date.

proportion of administrators on vacation. Nonetheless, the survey achieved an overall response rate of 74 percent–82 percent of the administrators, 74 percent of the faculty, and 48 percent of the trustees.

On the following pages, table 1 shows the response rate by type of respondent and type of institution, table 2 shows the response rates of the various kinds of administrators, and table 3 breaks down faculty response by field of study.

In all, 848 of the survey population of 1,150 filled out and returned the questionnaires. In the trustee group, the highest response rate was among those associated with private comprehensive institutions; trustees constituted the smallest survey group (133, or 12 percent of the 1,150 total), which may account for the wide range of trustee response rates when categorized by type of institution–26 to 64 percent. Faculty, who constituted 52 percent of the total population,

TABLE 1
Response Rates for Three Types of Respondents in Six Types of Institutions

Cell Key

No. Responded
Percent Responded

Type of Respondent	Type of Institution						
	Public Doctoral	Private Doctoral	Public Comprehensive	Private Comprehensive	Liberal Arts	Two-Year Colleges	Total
Trustee	12 60%	3 33%	7 26%	7 64%	16 44%	19 63%	64 48%
Administrator	71 90%	28 82%	73 72%	33 79%	63 82%	75 89%	343 82%
Faculty	77 77%	62 62%	62 62%	74 74%	90 90%	76 76%	441 74%
Total	160 80%	93 65%	142 62%	114 75%	169 79%	170 79%	848 74%

TABLE 2
Description of Administrator Respondents by Generic Title

Generic Title	Absolute Frequency	Relative Frequency
1. Chief Executive Officer	36	10.5%
2. Chief Academic Officer	33	9.6%
3. Chief Financial Officer	31	9.0%
4. Chief Student Services Officer	34	9.9%
5. Graduate School Officer	15	4.4%
6. Dean of General Studies	24	7.0%
7. Dean of a Professional School	22	6.4%
8. Department Chairperson–Physical Sciences	25	7.3%
9. Department Chairperson–Social Sciences	21	6.1%
10. Department Chairperson–Humanities	20	5.8%
11. Department Chairperson–Communications	14	4.1%
12. Institutional Research Officer	26	7.6%
13. Chief Planning Officer	23	6.7%
Subtotal	324	94.5%
14. No Title Given	19	5.5%
Total	343	100.0%

responded somewhat more uniformly: 62 to 90 percent. Administrators (417, or 36 percent) were even more uniform, with response rates ranging from 72 to 90 percent.

Tables 2 and 3 present additional descriptive information about the respondents. Table 2 reports the number of administrators by title who participated; numbers and percentages of responding faculty categorized by their field of study are illustrated in table 3.

TABLE 3
Description of Faculty Respondents by Field of Study

Department Title	Absolute Frequency	Relative Frequency
1. Agriculture/Natural Resources	1	.2%
2. Architecture	3	.7%
3. Area Studies	1	.2%
4. Biological Sciences	16	3.6%
5. Business/Commerce/Management	41	9.3%
6. Communications	4	.9%
7. Education	52	11.8%
8. Technology	34	7.7%
9. Fine and Applied Arts	38	8.6%
10. Foreign Languages	13	3.0%
11. Health Services	15	3.4%
12. Law	2	.5%
13. Letters	29	6.6%
14. Library Sciences	1	.2%
15. Mathematics	27	6.1%
16. Military Sciences	1	.2%
17. Physical Sciences	32	7.3%
18. Psychology	15	3.4%
19. Public Affairs	2	.5%
20. Social Sciences	61	13.8%
21. Theology	5	1.1%
22. Philosophy	3	.7%
23. Physical Education	15	3.4%
24. Interdisciplinary	2	.5%
Subtotal	413	93.7%
25. No Department Indicated	28	6.3%
Total	441	100.0%

NOTE: The field-of-study categories were developed by Allman, Wing, and McLaughlin (1975).

CHAPTER THREE

Findings of the Study

The types of institutions included in the MIGA survey differ widely in their functions and constituencies, and preferences for goals and measures generally vary across types of institutions rather than across categories of respondents. A central finding of the MIGA study is that the respondent groups are fairly well united in their opposition to traditional process measures of institutional performance, such as student-faculty ratios, grade-point averages, and credit-hour production. As illustrated in figure 1 (p. 7), considerable agreement seems to exist, both within and among the respondent groups, regarding the relative appropriateness of the 20 institutional goal areas specified in the survey and regarding which measures of progress are appropriate in these goal areas. This implies that a basis exists for a common front in postsecondary education vis-à-vis the proponents of the accountability status quo. That implication should be tested by close assessment of the differences in viewpoint among trustees, administrators, and faculty, both generally and within types of institutions.

Goal Areas

Because of the large number of dependent variables—20 goal areas and 125 measures of progress—the findings of the study are summarized most easily and clearly in tables. In following pages, table 5 shows the mean (average) rating given by each of the three respondent groups to each of the 20 goal areas. Table 4 ranks the goal areas according to relative appropriateness, in the group view of each type of respondent within each type of institution. To calculate relative appropriateness, the six-step ratings were converted to numbers and a mean rating calculated for each goal area.

In each table, four significant differences in rating are found, involving *Academic Development* (goal area A), *Intellectual Orientation* (B), *Research* (I), and *Freedom* (N). In all instances in table 4, trustees rated the goal significantly lower than either faculty or administrators while the latter ratings were essentially on a par. In table 5, the same is true except that the lower trustee rating for research is not, from a statistical standpoint, significantly different from the administrator rating. These differences are conspicuous when the top five goal-area priorities of each respondent group are compared:

Priority	Trustees (T)	Administrators (A)	Faculty (F)
1st	Vocational Preparation (A-8th; F-9th)	Academic Development	Academic Development
2nd	Community	Community	Community
3rd	Individual Personal Development (F-7th)	Intellectual Orientation (T-10th)	Intellectual Orientation (T-10th)
4th	Accountability/ Efficiency (A-9th; F-14th)	Individual Personal Development (F-7th)	Freedom (T-14th; A-6th)
5th	Academic Development	Innovative Climate (T-7th; F-6th)	Intellectual/ Aesthetic Environment (T-9th; A-7th)

TABLE 4
Appropriateness of 20 Institutional Goal Areas
As Rated by Trustees (T), Administrators (A), and Faculty (F)

Goal Areas	Level of Appropriateness					
	Inappropriate (1)	Low (2)	Below Average (3)	Average (4)	Above Average (5)	High (6)
A. Academic Development*					T F	A
B. Intellectual Development*					T AF	
C. Individual Personal Development					F AT	
D. Humanism/Altruism					AFT	
E. Cultural/Aesthetic Awareness				T	AF	
F. Traditional Religiousness		A	F T			
G. Vocational Preparation					FA T	
H. Advanced Training			T	AF		
I. Research*				T A F		
J. Meeting Local Needs					FAT	
K. Public Service				AFT		
L. Social Egalitarianism				AF T		
M. Social Criticism/Activism				T A F		
N. Freedom*				T	AF	
O. Democratic Governance				T	A F	
P. Community					TAF	
Q. Intellectual/Aesthetic Environment					T AF	
R. Innovative Climate					T AF	
S. Off-Campus Learning				TAF		
T. Accountability/Efficiency				F	AT	

*Indicates the existence of a statistically significant difference in the mean responses.

TABLE 5
Relative Rankings of 20 Institutional Goal Areas by Type of Respondent

Goal Area	Type of Respondent					
	Trustee		Administrator		Faculty	
	Rank	Mean	Rank	Mean	Rank	Mean
A. Academic Development*	5	5.000	1	5.555	1	5.432
B. Intellectual Orientation*	10	4.770	3	5.312	3	5.396
C. Individual Personal Development	3	5.081	4	5.051	7	4.965
D. Humanism/Altruism	8	4.806	11	4.752	10	4.879
E. Cultural/Aesthetic Awareness	15	4.180	13	4.678	12	4.664
F. Traditional Religiousness	20	3.148	20	2.385	20	2.570
G. Vocational Preparation	1	5.246	8	5.003	9	4.896
H. Advanced Training	19	3.262	18	3.702	19	3.986
I. Research*	18	3.377	16	3.935	15	4.282
J. Meeting Local Needs	6	4.984	10	4.817	11	4.744
K. Public Service	12	4.468	14	4.356	13	4.465
L. Social Egalitarianism	13	4.328	15	4.009	16	4.075
M. Social Criticism/Activism	17	3.574	19	3.689	17	4.073
N. Freedom*	14	4.283	6	5.021	4	5.177
O. Democratic Governance	11	4.475	12	4.734	8	4.923
P. Community	2	5.242	2	5.390	2	5.411
Q. Intellectual/Aesthetic Environment	9	4.778	7	5.006	5	5.133
R. Innovative Climate	7	4.806	5	5.036	6	5.062
S. Off-Campus Learning	16	3.783	17	3.932	18	3.991
T. Accountability/Efficiency	4	5.032	9	4.931	14	4.464

*Indicates the existence of significantly different responses for that particular goal area.

Faculty and administrators do assign different levels of appropriateness to some goals. *Democratic Governance*, for example, is ranked eighth by faculty and 12th by administrators, while *Accountability/Efficiency* is ranked ninth by administrators and 14th by faculty. But these differences are not statistically significant. In both instances, the ANOVA test revealed a difference in the type of respondent factor at the $\rho \leq .01$ level, which the Newman-Keuls procedure was unable to identify.

Tables 6 and 7 look at relative rankings of institutional goal areas made by respondents when categorized according to their type of institution rather than their individual roles. Differences and similarities are approximately what might be predicted on the basis of conventional assumptions regarding the general purposes of the various kinds of institutions represented in the survey. The chief differences and similarities, briefly summarized, are:

- Respondents at two-year institutions ranked *Academic Development* only ninth, although it was the first concern of respondents at all other types of institutions. The two-year-college respondents similarly gave *Intellectual Orientation*, *Advanced Training*, *Research*, and *Intellectual/Aesthetic Environment* their lowest ratings, while rating *Vocational Preparation*, *Meeting Local Needs*, and *Social Egalitarianism* higher than any other group of respondents.

- Respondents at liberal-arts colleges gave *Traditional Religiousness* its highest rating and *Advanced Training* and *Research* their next-to-lowest ratings.

- Respondents at comprehensive universities and colleges, both public and private, rated both *Advanced Training* and *Research* somewhat higher than did respondents at two-year and liberal-arts institutions, but well below the ratings given by respondents from doctorate-granting institutions.

- Respondents at public doctorate-granting universities rated *Social Egalitarianism* as a significantly more appropriate goal area than did their counterparts at private doctorate-granting universities, but there were no other meaningful rating differences between these groups.

- The only significant difference in the ratings of respondents at public and private comprehensive institutions involved *Meeting Local Needs*, which respondents at the public institutions rated higher.

What we have seen so far conforms generally with conventional wisdom and so do the indications of tables 8, 9, and 10. In these tables, the top seven ratings of goal areas are shown for each type of respondent at each of the three levels of institutions represented in the study: doctoral, comprehensive, and two-year/liberal arts.

Table 8 reflects the expected high emphasis at doctoral-level institutions on research and the values usually associated with academic/intellectual

TABLE 6

Appropriateness of 20 Institutional Goal Areas by Respondents from Public Doctorate-Granting Universities (1), Private Doctorate-Granting Universities (2), Public Comprehensive Universities and Colleges (3), Private Comprehensive Universities and Colleges (4), Liberal-Arts Colleges (5), and Two-Year Colleges (6)

Goal Areas	Level of Appropriateness					
	Inappropriate (1)	Low (2)	Below Average (3)	Average (4)	Above Average (5)	High (6)
A. Academic Development*					6 3 5 1 4 2	
B. Intellectual Development*					6 3 4 2 5 1	
C. Individual Personal Development*					1 3 4 6 2 5	
D. Humanism/Altruism*					6 4 1 2 5	
E. Cultural/Aesthetic Awareness*				6 4	3 5 1 2	
F. Traditional Religiousness*		1 3 2 6 4		5		
G. Vocational Preparation*					5 4 2 1 3	6
H. Advanced Training*		6 5		4	3 2	1
I. Research*		6		5 4 3	2 1	
J. Meeting Local Needs*				4 1 2	5 3	6
K. Public Service*				5 4 2	1 6 3	
L. Social Egalitarianism*			2 4	5 1 3	6	
M. Social Criticism/Activism				1 4 2 6 3 5		
N. Freedom					6 5 4 7 3 1	
O. Democratic Governance					1 4 2 5 6 3	
P. Community					2 1 6 3 4	5
Q. Intellectual/Aesthetic Environment					6 4 3 2 1 5	
R. Innovative Climate					1 2 5 4 3 6	
S. Off-Campus Learning				1 4 2 3 6 5		
T. Accountability/Efficiency					3 4 2 5 1 6	

*Indicates the existence of a statistically significant difference in the mean responses.

TABLE 7
Relative Rankings of 20 Institutional Goal Areas by Type of Institution

Goal Area	Rank Order and Means of Goal Areas by Type of Institution											
	Public Doctoral		Private Doctoral		Public Comprehensive		Private Comprehensive		Liberal Arts		Two-Year Colleges	
	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean
A. Academic Development	1	5.694	1	5.692	1	5.489	1	5.513	1	5.560	9	4.905
B. Intellectual Orientation*	2	5.583	2	5.615	3	5.365	2	5.509	3	5.448	12	4.607
C. Individual Personal Development*	10	4.790	8	5.022	10	4.841	7	4.991	4	5.315	6	5.054
D. Humanism/Altruism*	11	4.745	12	4.804	12	4.770	9	4.777	5	5.262	13	4.542
E. Cultural/Aesthetic Awareness*	12	4.718	10	4.870	13	4.752	12	4.469	10	4.871	15	4.200
F. Traditional Religiousness*	20	1.924	20	2.330	20	2.224	20	2.620	18	3.641	18	2.317
G. Vocational Preparation*	9	4.801	11	4.850	9	4.949	8	4.842	13	4.536	1	5.702
H. Advanced Training*	3	5.526	4	5.315	14	4.620	15	4.232	20	2.414	20	1.702
I. Research*	4	5.507	7	5.056	16	4.410	13	4.312	19	3.628	19	2.133
J. Meeting Local Needs*	16	4.369	15	4.407	8	4.971	14	4.183	11	4.746	2	5.641
K. Public Service*	13	4.615	16	4.308	11	4.783	16	4.204	16	3.903	11	4.663
L. Social Egalitarianism*	18	3.744	19	3.411	17	4.253	19	3.491	17	3.648	3	5.382
M. Social Criticism/Activism	19	3.671	17	3.888	18	4.037	17	3.882	15	4.000	17	3.828
N. Freedom	5	5.231	5	5.242	5	5.175	6	5.000	9	4.878	10	4.866
O. Democratic Governance	15	4.510	13	4.667	7	5.000	11	4.625	7	4.927	7	5.043
P. Community	7	5.200	3	5.322	2	5.449	3	5.491	2	5.536	4	5.339
Q. Intellectual/Aesthetic Environment*	6	5.213	6	5.194	4	5.226	4	5.080	6	5.230	14	4.494
R. Innovative Climate	8	4.834	9	4.989	6	5.153	5	5.036	8	4.915	5	5.256
S. Off-Campus Learning	17	3.758	18	3.674	19	3.942	18	3.839	14	4.279	16	4.043
T. Accountability/Efficiency	14	4.536	14	4.548	15	4.604	10	4.635	12	4.691	8	5.006

*Indicates goal areas for which significant differences among the respondents from the six types of institutions were found.

TABLE 8
Comparisons of "Should Be" Ratings of Appropriateness of Seven Goal Areas Considered Most Important by Three Types of Respondents in Public and Private Doctorate-Granting Institutions

Goal-Area Ranking	Type of Respondent					
	Trustees		Administrators		Faculty	
	Public Doctoral	Private Doctoral	Public Doctoral	Private Doctoral	Public Doctoral	Private Doctoral
1	Community	Community	Academic Development	Academic Development	Academic Development	Academic Development
2	Academic Development	Humanism/ Altruism	Research	Intellectual Orientation	Intellectual Orientation	Intellectual Orientation
3	Intellectual/ Aesthetic Environment	Individual Personal Development	Intellectual Orientation	Individual Personal Development	Advanced Training	Advanced Training
4	Research	Academic Development	Advanced Training	Community	Research	Community
5	Vocational Preparation	Accountability/ Efficiency	Community	Research	Freedom	Intellectual/ Aesthetic Environment
6	Intellectual Orientation	Innovative Climate	Intellectual/ Aesthetic Environment	Freedom	Intellectual/ Aesthetic Environment	Freedom
7	Accountability/ Efficiency	Freedom	Freedom	Advanced Training	Community	Innovative Climate

life. Only trustees at these institutions see *Vocational Preparation* and *Accountability/Efficiency* as high-priority goal areas. Beyond that, all three types of respondents at doctorate-granting universities are in striking agreement on goal-area priorities.

In table 9, we find again what we expect: that *Meeting Local Needs* is a relatively important goal area at comprehensive institutions, but that faculty priorities vary only slightly from those of faculty at doctorate-level institutions. This implies at least

a similarity in values if not a latent desire for the full academic life more readily attainable in the more prestigious institutions.

Predictably, distinctions become more marked when, as in table 10, the goal-area preferences of respondents at liberal-arts colleges are arrayed along with those of respondents at two-year institutions. Concern for the individual is implicit in both sets of priorities. But respondents from liberal-arts colleges are concerned about the individual mainly in an intellectual/academic context, while respondents from two-year colleges see *Vocational Preparation* and *Social Egalitarianism* as the best approaches. Moreover, these respondents believe that the two-year institution has a particular obligation to orient itself to local needs.

It is instructive to compare the results of the MIGA study with those of a somewhat similar study conducted in California by the Educational Testing Service in 1973. It must be borne in mind, however, that the studies were dissimilar in process as well as scope and cannot be related statistically. The ETS study used the 90 items in the Institutional Goals Inventory, aggregated the responses into goal areas, and then compared results across the several categories of respondents and institutions. The MIGA study sought to determine preferences for goal areas directly, without using the 90 detailed goal statements of the Inventory. Moreover, the ETS study categorized institutions according to the California system of higher education, while the MIGA study utilized the summary categories established by the Carnegie Commission.

Despite these procedural differences, the two studies produced markedly similar results. For example, the ETS study included the University of California at Berkeley, a public doctorate-granting institution, and employed categories of respondents roughly equivalent to the three types in the MIGA study. The order of the seven most important goal areas designated by these respondents in the MIGA study exhibits almost complete agreement with the Berkeley list. The sole significant difference was that the University of California regents placed *Advanced Training* in the top seven rather than *Vocational Preparation*.

With two exceptions, this similarity in results between the ETS and MIGA studies is maintained in other comparable institutional categories: in general, lists of the seven most important goal areas differ by no more than one item. Substantial variation is found only in comparing the goal-area preferences of trustees of public comprehensive institutions. These lists have only three common elements: *Community*, *Accountability/Efficiency*, and *Academic Development*.

MIGA Study	ETS Study
1. Community	1. Community
2. Meeting Local Needs	2. Accountability/Efficiency
3. Public Service	3. Vocational Preparation
4. Academic Development	4. Intellectual Orientation
5. Accountability/Efficiency	5. Academic Development
6. Intellectual/Aesthetic Environment	6. Innovation
7. Democratic Governance	7. Individual Personal Development

TABLE 9
Comparisons of "Should Be" Ratings of Appropriateness of Seven Goal Areas Considered Most Important by Three Types of Respondents in Public and Private Comprehensive Universities and Colleges

Goal-Area Ranking	Type of Respondent: Trustees		Administrators		Faculty	
	Public Comprehensive	Private Comprehensive	Public Comprehensive	Private Comprehensive	Public Comprehensive	Private Comprehensive
1	Community	Academic Development	Academic Development	Intellectual Orientation	Community	Community
2	Meeting Local Needs	Community	Community	Academic Development	Academic Development	Academic Development
3	Public Service	Individual Personal Development	Intellectual Orientation	Community	Freedom	Intellectual Orientation
4	Academic Development	Intellectual Orientation	Intellectual/ Aesthetic Environment	Individual Personal Development	Intellectual Orientation	Intellectual/ Aesthetic Environment
5	Accountability/ Efficiency	Vocational Preparation	Innovative Climate	Freedom	Intellectual/ Aesthetic Environment	Innovative Climate
6	Intellectual/ Aesthetic Environment	Accountability/ Efficiency	Meeting Local Needs	Innovative Climate	Innovative Climate	Freedom
7	Democratic Governance	Intellectual/ Aesthetic Environment	Vocational Preparation	Intellectual/ Aesthetic Environment	Democratic Governance	Individual Personal Development

TABLE 10
Comparisons of "Should Be" Ratings of Appropriateness of Seven Goal Areas Considered Most Important by Three Types of Respondents in Liberal-Arts Colleges and Two-Year Colleges

Goal-Area Ranking	Type of Respondent					
	Trustees		Administrators		Faculty	
	Liberal Arts	Two-Year Colleges	Liberal Arts	Two-Year Colleges	Liberal Arts	Two-Year Colleges
1	Individual Personal Development	Vocational Preparation	Academic Development	Meeting Local Needs	Community	Vocational Preparation
2	Academic Development	Meeting Local Needs	Community	Vocational Preparation	Intellectual Orientation	Meeting Local Needs
3	Community	Social Egalitarianism	Intellectual Orientation	Community	Academic Development	Social Egalitarianism
4	Humanism/ Altruism	Accountability/ Efficiency	Humanism/ Altruism	Innovative Climate	Intellectual/ Aesthetic Environment	Community
5	Intellectual Orientation	Community	Individual Personal Development	Social Egalitarianism	Individual Personal Development	Innovative Climate
6	Meeting Local Needs	Individual Personal Development	Intellectual/ Aesthetic Environment	Accountability/ Efficiency	Humanism/ Altruism	Democratic Governance
7	Intellectual/ Aesthetic Environment	Democratic Governance	Cultural/ Aesthetic Awareness	Academic Development	Democratic Governance	Individual Personal Development

Measures of Progress

With measures of progress, as with goal areas, perceptions of appropriateness differed principally across the six types of institutions rather than across types of respondents. There were significant differences between the ratings of appropriateness for 56 of the 125 measures of progress included in the questionnaire. But the views of trustees, administrators, and faculty differed significantly in only eight instances. (Only 7 measures are involved, but 1 is rated differently by multiple groups and thus appears twice.) The remaining significantly different ratings of appropriateness occurred across the six types of institutions.

Trustee ratings differed from those of administrators with regard to two measures and from those of faculty with regard to only one measure. In all three cases, the trustee ratings were lower. Significant difference between administrator and faculty ratings was found in the case of five measures. No consistent themes have been discerned to explain these differences, which are set out below.

Trustee Ratings Lower
than Administrator Ratings

- Scholarly works produced by students and/or former students that are considered suitable for publication (goal area: *Intellectual Orientation*)
- Institutional policies and procedures developed to protect the exercise of academic freedom by faculty and students (*Freedom*)

Trustee Ratings Lower
than Faculty Ratings

- Institutional policies and procedures developed to protect the exercise of academic freedom by faculty and students (*Freedom*)

Administrator Ratings Higher
than Faculty Ratings

- Satisfaction of currently enrolled students or recent graduates with their academic development (*Academic Development*)
- Availability and use of an institutional information system (*Accountability/Efficiency*)
- Satisfaction of students and former students with the extent and nature of their educational experience and subsequent employment (*Accountability/Efficiency*)

Faculty Ratings Higher
than Administrator Ratings

- Student-faculty ratios (*Academic Development*)
- Amount of released time granted to faculty members for community service (*Meeting Local Needs*)

The statistical analysis shows that the three respondent groups had similar views of appropriateness of 118 (19.4 percent) of the 125 measures.

Types of Institutions

Tables 11 and 12, on the following pages, display, first, the statistically significant differences that occur in ratings when respondents are categorized by type of institution and, second, the measures of progress accepted by all respondents, whether categorized by title or type of institution. The 56 measures about which there was significant difference, shown in table 11, amount to 44.8 percent of the total of 125 measures rated. Nonetheless, the 35 measures of progress in table 12 found acceptable by all respondent groups irrespective of institutional association, include at least one measure for each of the 20 goal areas. A measure was regarded as acceptable if it appeared consistently in the upper half of the rankings across all categories of respondents. (See Romney 1976, pp. 258-59, for a listing of measures of progress accepted by respondents categorized by type but not by institutional association, and vice versa.)

As table 11 shows, respondents at two-year institutions account for the vast majority of statistically significant differences in the ratings and respondents at liberal-arts colleges account for nearly all of the rest of the differences. Respondents at the four other kinds of institutions gave meaningfully different ratings to only 6 measures, occurring in five goal areas–an agreement level of 95.2 percent. There are, however, decipherable differences in the ratings calculated for the various measures within any given goal area. So the fact that the ratings of 119 of the measures given by respondents at the university level are statistically indistinguishable suggests that preferences for any given measure were, among these respondents, statistically similar in most cases.

Significant differences in appropriateness ratings correlated highly with differences in goal-area ratings, whether rated by respondents grouped according to role or according to institutional association. This correlation says simply that if a given respondent group, categorized by either role or institutional association, assessed the appropriateness of a particular goal area differently than did other respondent groups, it is likely that significant differences will be found also in the appropriateness ratings of many of the measures of progress associated in the questionnaire with that goal area. The correlation also implies that many respondents were unable to keep separate in their minds the assessment of the appropriateness of various measures of progress associated with that goal area.

Respondents at doctorate-granting and comprehensive institutions, both public and private, registered statistically meaningful differences in their ratings of just these six measures of progress:

- Quality of graduate-level theses or dissertations completed (goal area: *Intellectual Orientation*)–rated more appropriate by respondents at public doctorate-granting institutions than by respondents at public and private comprehensive universities and colleges
- Initial and subsequent salaries of former students (*Vocational Preparation*)–rated more appropriate by respondents at public

TABLE 11
A Summary of Significant Differences among Six Types of Institutions for Measures of Progress of Institutional Goal Achievement in 20 Different Goal Areas as Indicated by Newman-Keuls Multiple Comparison Procedures

Type of Institution	Category	Private Doctoral	Public Comprehensive	Private Comprehensive	Liberal Arts	Two-Year Colleges
Public Doctoral	Measures of Progress Valued Differently	—	B5, H4, H5, I6	B5, Q1	B5, C3, D4, F1, F6, G1, H1, H2, H3, H4, H5, H6, H7, I1, I2, I3, I4, I6, I7, I8, K2, K3, K4, Q1	A2, A6, A11, B5, B6, B7, B8, C1, C2, C3, F2, G2, G4, G6, G7, G11, H1, H2, H3, H4, H5, H6, H7, I1, I2, I3, I4, I5, I6, I7, I8, J1, J7, J8, J9, L3, Q1, T3
	Total	0	2	2	24	38
Private Doctoral	Measures of Progress Valued Differently	NA	H4	—	B5, H1, H2, H3, H4, H5, I1, I2, I6, K3, K4	A2, A11, B5, B6, B8, F1, F2, H1, H2, H3, H4, H5, H6, H7, I1, I2, I3, I4, I5, I6, I7, I8, J1, J2, J7, J8, J9, L3, L4, T3
	Total	NA	1	0	11	31
Public Comprehensive	Measures of Progress Valued Differently	NA	NA	G7	F1, F3, F6, G1, G7, H2, H3, I1, K3, K4	A11, B5, B6, B8, H1, H2, H3, H4, H5, H6, H7, I1, I2, I3, I4, I5, I6, I7, I8, J1, J9
	Total	NA	NA	1	10	21
Private Comprehensive	Measures of Progress Valued Differently	NA	NA	NA	H1, H2, H3, H6, I1, I2	A11, B5, B6, B8, F1, F2, F3, F4, F5, F6, G1, G2, G7, H1, H2, H3, H4, H5, H6, H7, I1, I2, I3, I4, I5, I6, I7, I8, J1, J2, J7, J9, L3, L4
	Total	NA	NA	NA	6	34
Liberal Arts	Measures of Progress Valued Differently	NA	NA	NA	NA	A11, B5, B6, B8, F1, F2, F3, F4, F5, F6, G1, G2, G3, G4, G5, G6, G7, G9, H1, H2, H3, H4, H5, H6, H7, I1, I2, I3, I5, I6, I7, I8, J1, J2, J6, J7, J8, J9, K1, K3, K4, L3 L4, R6
	Total	NA	NA	NA	NA	44

NOTE: Refer to the questionnaire in appendix B to find the names of the measures identified here by a code. For example, B5 refers to the fifth measure under goal area B and H4 to the fourth measure under goal area H. NA = Not Applicable

TABLE 12
Measures of Progress Accepted by All Three Types of Respondents and All Six Types of Institutions for 20 Institutional Goal Areas

Goal Area	Measures of Progress
Academic Development	Satisfaction of currently enrolled students or recent graduates with their academic development
	Student breadth and depth of knowledge
	Student ability to apply knowledge
	Student and/or former student performance on licensing and certification examinations
Intellectual Orientation	Student and/or former student perceptions and evaluations of their interest in continued self-initiated study and inquiry
	Student and/or former student ability to formulate and analyze problems
Individual Personal Development	Student and/or former student perceptions and evaluations of personal development opportunities offered at the institution
Humanism/Altruism	Characteristics of the institution's student body, faculty, and/or administration
	Students and/or former students expressing concern for human welfare and well being
Cultural/Aesthetic Awareness	Availability of cultural/aesthetic opportunities on campus
	Student attendance at artist series and lecture series presentations
Traditional Religiousness	Student and/or former student evaluations of the effect of their institutional experience on traditional religious values
Vocational Preparation	Former students employed in their fields of training within a given period of time after graduation
	Student and/or former student satisfaction with vocational or professional training at the institution
	Employer satisfaction with former students' vocational or professional training
Advanced Training	Evaluations of the quality of institutional graduate and professional programs
Research	Basic research publications or other results of scholarly effort produced by students or faculty members during the past year
Meeting Local Needs	Institutional sponsorship of seminars, conferences, workshops, etc., for high school students, teachers, parents, etc.
	Existence of cooperative institutional/community planning efforts to identify and meet local needs
Public Service	Course offerings pertaining to local, state, regional, and/or national problems or issues

TABLE 12 (Continued)

Goal Area	Measures of Progress
Social Egalitarianism	Recruitment of minority and educationally disadvantaged students
Social Criticism/Activism	Utilization by students and/or former students of mechanisms (e.g., voting, petitions) of the political process Participation in social, charitable, political, or civic organizations by faculty, students, and/or former students
Freedom	Faculty and student ratings of campus environment relative to freedom to teach and learn Institutional policies and procedures developed to protect the exercise of academic freedom by faculty and students
Democratic Governance	Faculty, student, and administrative ratings of institutional governance environment Attendance and participation by faculty in the faculty senate or similar body
Community	Faculty and staff perceptions and evaluations of internal morale
Intellectual/Aesthetic Environment	Availability of cultural performances Students and/or faculty attendance at cultural activities sponsored by the institution
Innovative Climate	Amount of faculty time devoted to curriculum design and/or course improvement Impacts of modifications made in courses and programs
Off-Campus Learning	Existence of off-campus instructional programs Credits (or their equivalent) earned in off-campus work
Accountability/ Efficiency	Satisfaction of students and former students with the extent and nature of their educational experience and subsequent employment

comprehensive institutions than by those at private comprehensive institutions

- Awards for advanced study made to students, former students, and/or faculty, e.g., Woodrow Wilson fellowships, Fulbright scholarships, Rhodes scholarships (*Advanced Training*)—rated more appropriate by respondents at public and private doctorate-granting institutions than by those at public comprehensive universities and colleges
- Scholarly works produced by graduate students and/or former graduate students considered suitable for publication (*Advanced Training*)—rated more appropriate by respondents at public doctorate-granting institutions than by respondents at public comprehensive institutions
- Citations of basic research publications in bibliographies of other authors (*Research*)—rated higher by respondents at public doctorate-granting institutions than by those at public comprehensive institutions
- Existence of museums, galleries, planetariums, etc., on campus (*Intellectual/Aesthetic Environment*)—rated higher by respondents at public doctorate-granting institutions than by respondents at private comprehensive institutions

The key feature of the differences is that respondents at doctoral-level universities placed greater emphasis on the importance of measures of graduate-level excellence than did respondents at comprehensive institutions, while the latter attached greater importance to measures of benefits provided by institutions to their essentially non-academic constituents.

Respondents at liberal-arts colleges gave ratings different from those of all other institutional groups of respondents to four measures. In each instance, these differing ratings were directly related to the appropriateness ratings given by liberal-arts-college respondents to the goal area associated with the measure. Similarly, the character of the difference—that is, whether the rating was higher or lower than others—was generally the same as the associated goal-area rating. Moreover, this bias in the ratings given by respondents at liberal-arts colleges generally is reflected in the ratings they give to other measures associated with the goal area, even though those differences did not prove to be statistically significant. For example, respondents at liberal-arts institutions rated all measures under *Traditional Religiousness* higher than did other respondents, though only one measure in the set was rated significantly higher.

Three of the ratings by respondents at liberal-arts colleges differed from the other ratings in the same way: they were lower than the ratings given by respondents at doctorate-granting and comprehensive institutions but still significantly higher than the ratings given by respondents at two-year institutions. All three measures are of essentially graduate-level concern:

- Institutional faculty and student ratings of the quality of institutional graduate programs (goal area: *Advanced Training*)

- Annual expenditures devoted to research, support of graduate students, etc. (*Advanced Training*)
- The dollar amount of research grants and contracts received by the institution (*Research*)

Respondents at liberal-arts institutions gave a significantly higher rating than that given by all other respondent groups to one measure, "students and/or former students belonging to or holding office in religious organizations." Respondents at two-year institutions had significantly different estimates than all others regarding the appropriateness of 20 measures of progress. Two of these measures, both associated with the goal area called *Meeting Local Needs*, received their highest ratings from these respondents. The measures are "participation by senior citizens in courses offered by the institution" and "participation of 'nontraditional' students in institutional programs and activities." The two-year-institution respondents' ratings were significantly lower than all others for 18 measures of progress, all but one of which have to do with graduate-level programs and research, and all of which fall into four goal areas. The appropriateness ratings given by these respondents to those four goal areas, as well as to the goal area associated with the 2 highly-rated measures, differed from goal-area appropriateness ratings given by other respondent groups in the same way that the appropriateness ratings of the measures in each goal area differed. For example, respondents at two-year institutions gave the *Academic Development* goal area its lowest rating and also gave all the measures associated with *Academic Development* their lowest ratings, including one rating that was lowest by a statistically significant margin. The 18 measures are listed below, grouped by goal area.

Academic Development

- Scholarly works produced by students and/or former students that are considered suitable for publication

Advanced Training

- Evaluations of the quality of institutional graduate and professional programs
- Institutional faculty and student ratings of the quality of institutional graduate programs
- Annual expenditures devoted to research, support of graduate students, etc.
- Awards for advanced study made to students, former students, and/or faculty
- Scholarly works produced by graduate students and/or former graduate students considered suitable for publication
- Student and/or former student evaluations and/or perceptions of the quality of their advanced training experience
- Ratings of graduate faculty and programs

Intellectual Orientation

- Quality of graduate-level theses or dissertations completed

- Continuing active intellectual involvement of former students in other than formal, advanced study
- Scholarly works produced by students and/or former students that are considered suitable for publication

Research

- The dollar amount of research grants and contracts received by the institution
- Basic research publications or other results of scholarly efforts produced by students or faculty members during the past year
- Assignable square feet of laboratory space assigned to research activities for students and/or faculty
- Faculty time devoted to research activities
- Citations of basic research publications in bibliographies of other authors
- Article reprints sought
- Use of faculty production of scholarly efforts for awarding salaries and promotions

CHAPTER FOUR

Conclusions

Assessment of Results

The results of the MIGA study contain a number of implications bearing on the conduct and assessment of postsecondary education. Perhaps the most important conclusion stems from analysis of the kinds of information considered by respondents to be most appropriate for measuring progress toward institutional goals. These were measures pertaining to the quality of the academic experience, the effectiveness of performance, and the utility of and satisfaction with acquired skills. Virtually all categories of respondents deemed these measures more appropriate than the conventional measures that are oriented to process and used chiefly in making cost comparisons. With some exceptions, trustees, administrators, and faculty preferred measures of impact and satisfaction: terms such as *application, acquisition, participation, employment, sponsorship, recruitment,* and *utilization* occur or are implied throughout the lists of preferred measures. The inference is that respondents preferred such impacts of higher education because they tend to be observable and can either be measured or described in terms that support meaningful assessment of results.

These and all other of the author's conclusions from the MIGA study have to be recognized as one-sided at best. By and large, participants in the study represented the supply side of education rather than the consumer side. Nonetheless, the emphases on impact and action reflected in the measures of goal progress found most acceptable intimate that institutional personnel are willing to be accountable. But trustees, administrators, and faculty alike believe that accountability should concentrate on impact, the effectiveness of the outcomes of education, rather than the efficiency of the educational process.

Analysis of the measures rejected by the respondents, including a number dealing with quality and impact, suggests an abiding concern for measures that are valid and based on objective observation. This is inferred from an admittedly impressionistic assessment of the characteristics that distinguish the measures given relatively low appropriateness ratings. There appeared to be five operant factors:

- *Face Validity*: The apparent applicability (or lack thereof) of a measure to the goal area in question seemed more important to respondents than the source of the required information
- *Lack of Background*: A measure might be deemed inappropriate because the organizational role of the individual who would supply the information may have been regarded as inappropriate or inadequate for such a function
- *Data Problems*: Whether or not the information and source seemed appropriate, the requisite information would be difficult if not impossible to collect in valid, reliable form
- *Institutional Diversity*: The expectations held by a respondent for his institution and the manner in which a related goal area would be expressed in the institution's programs and activities may have motivated the rejection of some measures

that might have been rated as appropriate in other settings

- *Obtuseness*: Unclear definition of a goal area or measure may have resulted in a low rating

Better definitions and stronger justifications for relating measures to goal areas undoubtedly would help strengthen the selection process, but this will not exorcise the ghosts of territorial imperatives and purely personal preference, which lurk in the shadows of every judgmental undertaking.

The results of the study suggest some conclusions about the development of goals and appropriate measures of progress for these goals. Most of the basic kinds of institutions of higher education (proprietary institutions were excluded) and all major geographic sectors of the nation were represented in the study population. The results reveal that consensus exists across all types of institutions regarding the appropriateness of some goal areas and associated measures, while in other cases, consensus is restricted to respondents at particular kinds of institutions. It is likely, therefore, that consensus-building techniques can facilitate the selection of appropriate goals and measures within institutions, within systems or similar groups of institutions, and also across the conglomeration of types of institutions. The task of identifying conceptions of common purposes and acceptable measures of progress toward their achievement seems feasible, and the number of goals and measures thought appropriate most likely will decrease as consensus building progresses and includes greater numbers of institutions.

The author believes that the study results indicate the need to work for economy of information. For any given type of institution or respondent, the range of goals considered to be appropriate is rather large and includes goal areas that are only nominally important as well as a few that probably are inappropriate. Accordingly, the development of measures that substantiate progress toward achieving goals would best be restricted to those few goal areas that relevant constituencies consider most appropriate. Throughout higher education, the potential for information overload is overwhelming. Few institutions and relatively few individuals within them have the capacity to digest large quantities of information. It would be prudent to concentrate on the few highly appropriate goal areas about which to seek fully usable information rather than trying to document progress in every goal area that has been accorded some degree of appropriateness.

In addition, the MIGA study indicates that if the following 14 types of information were collected, progress could be assessed in the seven goal areas rated as most important for each of the six types of institutions surveyed. Moreover, this evidence would be generally acceptable among trustees, administrators, and faculty in each type of institution. The 14 measures are these:

- Student ability to apply knowledge
- Continuing active intellectual involvement of former students in other than formal, advanced study
- Course offerings and institutional opportunities pertaining to the development

of individual goals, values, and personal growth
- Students and/or former students expressing concern for human welfare and well being
- Employer satisfaction with former students' vocational or professional training
- Scholarly works produced by graduate students and/or former graduate students considered suitable for publication
- Basic research publications or other results of scholarly effort produced by students or faculty members during the past year
- Evaluations and perceptions of members of the community regarding the quality of institutional services available to them
- Existence of special courses and programs to meet the needs of particular groups of students
- Institutional policies and procedures developed to protect the exercise of academic freedom by faculty and students
- Attendance and participation by faculty in the faculty senate or similar body
- Faculty and staff perceptions and evaluations of internal morale
- Student and/or faculty attendance at cultural activities sponsored by the institution
- Impacts of modifications made in courses and programs

These measures, as well as those contained in table 12, are decidedly incompatible with measures most commonly used to provide evidence of accountability in higher education at present. For example, in a study to determine which measures of community-college outcomes are collected by state agencies, Kinnison (1975) found that most community colleges are required to supply information on the number of students enrolled, full-time-equivalent students, and degrees granted. For higher education generally, the list of typically collected measures includes grade-point averages, student-faculty ratios, and similar quantified indicators of process effectiveness and/or efficiency. Yet, as we have seen, no such measures were rated highly appropriate in the MIGA study. In fact, these conventional measures conform more in orientation and substance to measures rejected by the MIGA study respondents (Romney 1976). This conflict holds important implications for institutional management and productivity as well as for statewide control and coordination of higher education. If the theme of enumeration continues to dominate the accountability process, institutional administrators and faculty may begin to function in accordance with radically different incentive structures. Emphasis on quality and impact may give way to a drive for a greater degree of production and higher body counts. In such an environment, all participants would tend to lose what now generally are conceded to be valuable benefits, albeit not reflected in the accountability process: the quality of the students' educational experience would decline; administrators and faculty would find themselves on a process-oriented treadmill; state-level agencies would find that the declining effectiveness of higher education was decreasing the value of the human capital that education provides. This is not to say that the views of trustees, administrators, and faculty

expressed in the MIGA study are necessarily correct or that higher education should be content to preserve the status quo. The foregoing comments may reasonably be regarded as partaking of the bias of the study respondents, the outlook of the sellers of education rather than the buyers. It does not follow, however, that assessing accountability in terms of impact and satisfaction induced would inhibit wise and productive change in higher education. Indeed, outcomes-oriented accountability may well create pressure to improve productivity in ways that are far more valuable to the student and society as a whole than indiscriminate cost containment.

Respondents in the MIGA study generally reacted negatively to measures that would confer any authenticity to student evaluation of courses or student assessments of the relevancy of course materials. This suggests that the student-driven course and faculty evaluation mechanisms, which came into vogue in the sixties, may be producing information that now is largely unheeded by those in the institution with authority, responsibility, and expertise. The weakness of the MIGA study was that it did not include student respondents, an omission forced by limited resources. The Educational Testing Service study in California did encompass the views of students, against which views of MIGA-study respondents may be compared. The differences in the design of the two studies and their separation in time by four years during a period of accelerated change in higher education of course limits the significance of the comparison.

In any case, the seven most important goal areas selected by students in four kinds of California institutions do not differ unexpectedly from the preferences registered in the MIGA study by faculty and administrators at the same kinds of institutions. Students in the ETS study stressed *Individual Personal Development, Vocational Preparation, Freedom,* and *Democratic Governance* much more than did faculty or administrator respondents in the MIGA study. The predictability of this difference in outlook, coupled with the other similarities in results of the two studies discussed in chapter 3, leads one to infer that had students been included in the MIGA study, their goal-area preferences would not have deviated substantially from student preferences recorded in the ETS study. It is riskier to guess which measures of progress students might have regarded as most appropriate. Several efforts have been made (Minter 1975, Brogly 1967, Kinnick 1975) to determine what kinds of information students want about an institution when they apply for admission. Generally, they want information about campus environments, program results, and ultimate job opportunities. But these studies were limited to entering students and provide no basis for assuming that their perceived information needs when selecting an institution would be consistent with their opinions about which pieces of information constitute appropriate evidence of institutional goal achievement.

The relatively low response rate of the trustee portion of the MIGA-study population, as well as the comments made by a number of trustees who did return the questionnaire, indicates that many

trustees have only the most general familiarity with their institutions. Many were willing to address the issue of appropriate goal areas but regarded the determination of appropriate measures of progress as beyond their knowledge and responsibility. If specifying measures of progress for institutional goal areas is a key step in translating goals into statements of measurable objectives, then one must wonder what the role of trustees in such a process would be. One would suppose that trustees have an active interest in evidence of progress toward institutional goals. When these most obvious beneficiaries of evaluation information confess themselves to be inappropriate respondents in the MIGA study, the need for institutions to instruct their boards in such matters must be widespread.

Finally, we should note that rejection by MIGA-study respondents of the conventional accountability measures has implications for management information systems in higher education and their users. The fact that measures such as grade-point averages, student-faculty ratios, faculty time distributions, and institutional expenditures were regarded as relatively inappropriate measures of goal progress does not mean that these data are of no use to management. Financing, program planning, and resource allocation are among the management functions heavily dependent upon such information. And the showing of the study that many new kinds of information should be collected by institutions underscores the need to develop institutional capability to gather and analyze outcomes information in a systematic way.

Recommendations

The results of the MIGA study support expression of some specific recommendations regarding the provision of evidence of institutional goal achievement, the use of such evidence, and the conduct of additional research to verify the study results, extend their application, and overcome some of the limitations inherent in the study. Regarding the selection of the best measure of progress in each goal area, the firmest recommendation that the results will support is a listing of the measures considered most appropriate by each of the three types of respondents. Whether or not one measure would suffice for each goal area deemed appropriate has not been studied. If any particular goal area were to be described in different terms, or special emphasis given to a particular dimension, a shift in appropriateness ratings of associated measures of progress would be expected—another reason to eschew recommendation of one measure above all others in any goal area.

A recommendation regarding institutional data-collection efforts can be made with more confidence, however. The burden of responding to federal, state, and local information requests is causing a major drain on institutional operating budgets. The number of requests is not likely to decrease. Institutions cannot wisely choose to fail to respond, especially when the requests figure in accountability, which over time influences financial support. Here, concise responses are needed to the more important reporting demands—that is, those that have to do with justifying institutional

existence. The MIGA-study results suggest that not all kinds of information are considered by respondents to be equally appropriate for such justification. Indeed, many of the established accountability measures are seen by these respondents as only moderately appropriate at best. The recommendation, therefore, is that the findings of the MIGA study be used as a basis for selecting a limited set of information items. A restricted set would be particularly useful where information-gathering resource constraints exist despite mounting demands for accountability.

Further research in this area should be designed to overcome some limitations of the MIGA study. To do this, the following suggestions are made:

- The 20 goal areas described in the MIGA survey were developed by the Educational Testing Service on a national basis. But the ETS Institutional Goals Inventory is not necessarily applicable to all institutions nor is it the only such set of goals that might have been used. Additional research is needed to determine appropriate measures of progress for other goal areas and other goal structures.
- The MIGA study utilized the 20 broadly stated goal areas of the Institutional Goals Inventory rather than the Inventory's 90 specific goal statements. Research is needed to determine appropriate measures for more specifically stated institutional goals.
- The perceptions of audiences other than trustees, administrators, and faculty regarding appropriate measures of progress toward institutional goals should be studied. Future efforts should include as respondents students, parents, alumni, funders, legislators, and community representatives.
- Much research is needed regarding the translation of institutional goals into measurable, observable objectives. The results of the MIGA study should be useful in such translation efforts. Additional research should determine whether goal translation is in fact possible in meaningful form, appropriate to the conduct of higher education.
- Respondents in the MIGA study suggested lengthy lists of measures in addition to those defined in the questionnaire. Further research is needed to examine the appropriateness of these suggestions and to collect others. Methodologies for collecting such information should be developed.

It is frequently observed that higher education in America is at a crossroads. Who shall determine the direction it takes—and therefore the role and future scope of this key social enterprise, lately so beleaguered? Those who specify and maintain information about the success of higher education will have great influence on that decision, however and by whomever ultimately taken. The MIGA study was intended to make some small contribution to our knowledge about ways to measure the accomplishments of higher education. Publication of the results in this summary report is undertaken in the hope of stimulating the interest and involvement of those in higher education in a position to

encourage and support more such work. For determining the appropriateness of goals and measures of progress is a technical business, often tedious and frustratingly inexact. But it goes to the heart of a question as large as any posed by the present circumstances of our democratic society: what good is a college education?

APPENDIX A

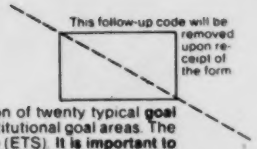
Study Participants

The study population consisted of 1,150 faculty, trustees, and administrators for 45 colleges and universities throughout the country. These institutions were classified into six major categories, as follows:

- Public Doctorate-Granting Institutions (7)
  1. Bowling Green State University
  2. Kansas State University
  3. Oregon State University
  4. University of Colorado
  5. University of Idaho
  6. Colorado State University
  7. University of Texas at Austin
- Private Doctorate-Granting Institutions (3)
  1. Rensselaer Polytechnic Institute
  2. University of Denver
  3. University of the Pacific
- Public Comprehensive Universities and Colleges (9)
  1. Bloomsburg State College
  2. Indiana University/Purdue University at Fort Wayne
  3. California State University at Northridge
  4. Metropolitan State College
  5. Michigan Technological University
  6. North Carolina Agricultural and Technical State University
  7. Northeastern Oklahoma State University
  8. Northern Michigan University
  9. Western New Mexico University
- Private Comprehensive Universities and Colleges (4)
  1. Rider College
  2. Lewis and Clark University
  3. Clarkson College
  4. Lewis University
- Liberal Arts Colleges (12)
  1. Earlham College
  2. Aurora College
  3. California State College at San Bernadino
  4. Gettysburg College
  5. Clark College
  6. Felician College
  7. Lindenwood College
  8. Spring Arbor College
  9. Sacred Heart College
  10. St. Francis College
  11. Villa Maria College
  12. Wartburg College
- Two-Year Colleges and Institutes (10)
  1. Aims Community College
  2. El Paso Community College
  3. Hagerstown Junior College
  4. Cecil Community College
  5. North Dakota State School of Science
  6. Delaware County Community College
  7. Santa Fe Community College
  8. St. Petersburg Junior College
  9. Stark Technical College
  10. Trinidad State Junior College

APPENDIX B

MIGA Study Survey Instrument



INSTITUTIONAL GOAL ACHIEVEMENT: MEASURES OF PROGRESS

The purpose of this questionnaire is to determine the **appropriateness** for your institution of twenty typical **goal areas** and the **appropriateness** of several **measures of progress** in each of these twenty institutional goal areas. The goal areas and associated definitions were developed by the Educational Testing Service (ETS). **It is important to note that these goal area definitions contain illustrations of specific institutional goals for each goal area. The phrases within each of these definitions are not intended to be exhaustive, synonymous, or mutually exclusive.** The measures of progress have been developed by the staff of the National Center for Higher Education Management Systems (NCHEMS), a panel of expert judges, and a pilot test effort. These measures are intended to be items of raw data that subsequently may be used to calculate averages, percentages, frequency distributions, ratios, trends, increments of change over time, etc.

INSTRUCTIONS:

Before completing the questionnaire, please read the attached "Informed Consent" document.

To complete this questionnaire:

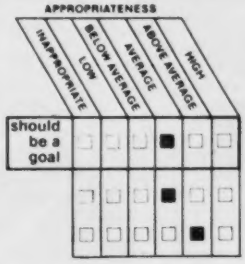
1. Please answer the items in Section I as they best describe you.
2. For each goal area, mark the response category which best reflects your perception of the extent to which the goal area **should be a goal** of your institution.
3. For each measure under each goal area, mark the response category that best indicates your view of the appropriateness of that measure as evidence of progress for that given goal area.

   As you rate the appropriateness of each measure:
   - Try to separate the question of feasibility (i.e., of data collection) from the question of appropriateness. Of each measure you may want to ask the following kind of question: "If these data were available, would they provide an appropriate measure of progress for this particular goal area?"
   - You will also need to separate your preference for the goal area from the appropriateness of the progress measure. Thus ask: "If this were an appropriate goal for an institution, would these data be an appropriate measure of progress toward its achievement?"

   The following example illustrates how the individual goal areas and measures are to be marked.

EXAMPLE:

INSTRUCTIONS:
1. Please rate the **appropriateness** of **each goal area** in terms of the extent to which it **should be a goal** of your institution.
2. Then, please rate each **measure** in terms of its **appropriateness** as **evidence of progress** toward the achievement of that goal area.



G. **Vocational Preparation.** (Illustrative goals in this area include offering specific occupational curriculums, programs geared to emerging or current career fields, opportunities for retaining or upgrading skills, and/or assistance to students in career planning.)

1. Variety and quality of vocational and professional degree or certificate programs (institutional records*)
2. Enrollments in vocational and professional degree programs (institutional records)

*Indicates the source of the information.

Space has been provided to allow you to insert and rate an additional measure under each goal area if you so desire.

4. When you have completed the questionnaire, please return it in the enclosed envelope.

* 20 Goal Areas from *Institutional Goals Inventory*. Copyright © 1972 by Educational Testing Service. All rights reserved. Adapted and reproduced by permission.

QUESTIONNAIRE:

SECTION I: DEMOGRAPHIC INFORMATION

Please select and mark the one category that best describes you for each of the following questions:

1 Teaching Faculty. Enter the name of your department in the space provided _____ ☐

2 Administrators. Enter your title in the space provided _____ ☐

3 Faculty. Indicate current academic rank.
☐ Instructor ☐ Assistant Professor ☐ Associate Professor ☐ Professor ☐ Other

4 All respondents. Select the sex and age categories that describe you.
☐ Male ☐ Female ☐ Under 18 ☐ 18-20 ☐ 21-25 ☐ 26-30 ☐ 31-40 ☐ 41-50 ☐ Over 50

5 All respondents. Indicate number of years at this institution.
☐ 01-05 ☐ 06-10 ☐ 11-15 ☐ 16 or more

SECTION II: INSTITUTIONAL GOAL ACHIEVEMENT. MEASURES OF A PROGRESS

INSTRUCTIONS:

1 Please rate the **appropriateness** of **each goal area** in terms of the extent to which it **should be a goal** of your institution.

2 Then, please rate each **measure** in terms of its **appropriateness** as **evidence of progress** toward the achievement of that goal area.

	APPROPRIATENESS					
	INAPPROPRIATE	LOW	BELOW AVERAGE	AVERAGE	ABOVE AVERAGE	HIGH
should be a goal	☐	☐	☐	☐	☐	☐
A **Academic Development*** (Illustrative goals in this area include acquisition of general and specialized knowledge, preparation of students for advanced scholarly study, and/or maintenance of high intellectual standards on the campus.)						
1 Grade-point average (GPA) in college work for various student levels (Institutional records)	☐	☐	☐	☐	☐	☐
2 Institutional graduates accepted for additional study in high-ranking schools (follow-up study)	☐	☐	☐	☐	☐	☐
3 Satisfaction of currently enrolled students or recent graduates with their academic development (institutional study)	☐	☐	☐	☐	☐	☐
4 Student breadth and depth of knowledge (standardized instruments)	☐	☐	☐	☐	☐	☐
5 Student ability to apply knowledge (standardized instruments)	☐	☐	☐	☐	☐	☐
6 Academic performance awards and citations received by students and/or former students (follow-up study)	☐	☐	☐	☐	☐	☐
7 Amount of faculty time devoted to course preparation, presentation, and evaluation (faculty activity survey)	☐	☐	☐	☐	☐	☐
8 Student/faculty ratios (institutional records)	☐	☐	☐	☐	☐	☐
9 Evaluations of the quality of the institution's academic programs by faculty from other institutions (institutional study)	☐	☐	☐	☐	☐	☐
10 Student and/or former student performance on licensing and certification examinations (follow-up study)	☐	☐	☐	☐	☐	☐
11 Scholarly works produced by students and/or former students that are considered suitable for publication (institutional study)	☐	☐	☐	☐	☐	☐
12 _____	☐	☐	☐	☐	☐	☐
should be a goal	☐	☐	☐	☐	☐	☐
B **Intellectual Orientation.** (Illustrative goals in this area include attitudes about learning and intellectual work, familiarity with research and problem-solving methods, the ability to synthesize knowledge from many sources, and/or the capacity for self-directed learning and a commitment to lifelong learning.)						
1 Student and/or former student perceptions and evaluations about their attitudes and beliefs toward new and different intellectual work or experience (follow-up questionnaire)	☐	☐	☐	☐	☐	☐
2 Student and/or former student perceptions and evaluations of their interest in continued self-initiated study and inquiry (follow-up questionnaire)	☐	☐	☐	☐	☐	☐
3 Student and/or former student ability to create original perspectives, explanations, and implementations (standardized instruments)	☐	☐	☐	☐	☐	☐

INSTRUCTIONS:

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2. Then, please rate each **measure** in terms of its **appropriateness** as **evidence of progress** toward the achievement of that goal area.

APPROPRIATENESS

	INAPPROPRIATE	LOW	BELOW AVERAGE	AVERAGE	ABOVE AVERAGE	HIGH
B **Intellectual Orientation.** (continued)						
4 Student and/or former student ability to formulate and analyze problems (standardized instruments)	☐	☐	☐	☐	☐	☐
5 Quality of graduate-level theses or dissertations completed (institutional records)	☐	☐	☐	☐	☐	☐
6 Continuing, active intellectual involvement of former students in other than formal, advanced study (follow-up study)	☐	☐	☐	☐	☐	☐
7 Student evaluations of courses (course evaluation studies)	☐	☐	☐	☐	☐	☐
8 Scholarly works produced by students and/or former students that are considered suitable for publication (institutional study)	☐	☐	☐	☐	☐	☐
9 _____	☐	☐	☐	☐	☐	☐
C **Individual Personal Development.** (Illustrative goals in this area include identification by students of personal goals and development of means for achieving them and/or enhancement of sense of self-worth and self-confidence.)	**should be a goal**	☐	☐	☐	☐	☐	☐
1 Students and/or former students who have achieved an individually identified plan of study, experience, etc. (follow-up study)	☐	☐	☐	☐	☐	☐
2 Student and/or former student perceptions about themselves (standardized instruments)	☐	☐	☐	☐	☐	☐
3 Course offerings and institutional opportunities pertaining to the development of individual goals, values, and personal growth (institutional study)	☐	☐	☐	☐	☐	☐
4 Student and/or former student perceptions and evaluations of personal development opportunities offered at the institution (follow-up study)	☐	☐	☐	☐	☐	☐
5 _____	☐	☐	☐	☐	☐	☐
D **Humanism/Altruism.** (Illustrative goals in this area include respect for diverse cultures, commitment to working for world peace, consciousness of the important moral issues of the time, and/or concern about the welfare of man generally.)	**should be a goal**	☐	☐	☐	☐	☐	☐
1 Characteristics of the institution's student body, faculty, and/or administration (institutional study)	☐	☐	☐	☐	☐	☐
2 Students and/or former students holding specifically identified racial and ethnic attitudes and beliefs (standardized instruments)	☐	☐	☐	☐	☐	☐
3 Students and/or former students participating in special social development programs—Peace Corps, VISTA, etc.—(student questionnaire)	☐	☐	☐	☐	☐	☐
4 Student and/or former students expressing concern for human welfare and well being (standardized instruments)	☐	☐	☐	☐	☐	☐
5 _____	☐	☐	☐	☐	☐	☐
E **Cultural/Aesthetic Awareness.** (Illustrative goals in this area include a heightened appreciation of a variety of art forms, required study in the humanities or arts, exposure to forms of non-western art, and/or encouragement of active student participation in artistic activities.)	**should be a goal**	☐	☐	☐	☐	☐	☐
1 Student and/or former student perceptions and evaluations of their interest in humanities, arts, or artistic activities (standardized instruments)	☐	☐	☐	☐	☐	☐
2 Participation in courses that emphasize and develop cultural interests (institutional records)	☐	☐	☐	☐	☐	☐
3 Student visits to campus museums, galleries, planetariums, etc. (institutional study)	☐	☐	☐	☐	☐	☐
4 Student participation in campus theatrical and/or musical groups (institutional study)	☐	☐	☐	☐	☐	☐

INSTRUCTIONS:

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	APPROPRIATENESS					
	INAPPROPRIATE	LOW	BELOW AVERAGE	AVERAGE	ABOVE AVERAGE	HIGH
E. **Cultural/Aesthetic Awareness** (continued)						
5 Availability of cultural/aesthetic opportunities on campus (institutional records)	☐	☐	☐	☐	☐	☐
6 Student attendance at artist series and lecture series presentations (institutional study)	☐	☐	☐	☐	☐	☐
7 Faculty and student evaluations of the cultural/aesthetic climate of the institution (institutional study)	☐	☐	☐	☐	☐	☐
8 Awards received by faculty and students at juried art shows, music contests, etc. (institutional study)	☐	☐	☐	☐	☐	☐
9 Students attending presentations of campus theatrical and/or musical groups (institutional study)	☐	☐	☐	☐	☐	☐
10 _____	☐	☐	☐	☐	☐	☐
F. **Traditional Religiousness.** (Illustrative goals in this area include a religiousness that is orthodox, doctrinal, usually sectarian, and often fundamental and/or, in short, "traditional" rather than "secular" or "modern.") **should be a goal**	☐	☐	☐	☐	☐	☐
1 Representation of traditional, organized religion on campus (institutional study)	☐	☐	☐	☐	☐	☐
2 Student participation in religious services (institutional study)	☐	☐	☐	☐	☐	☐
3 Student and/or former student contributions to religious organizations (follow-up study)	☐	☐	☐	☐	☐	☐
4 Students and/or former students belonging to or holding office in religious organizations (follow-up study)	☐	☐	☐	☐	☐	☐
5 Students and/or former students holding specifically identified religious and spiritual attitudes and beliefs (standardized instruments) instruments)	☐	☐	☐	☐	☐	☐
6 Student and/or former student evaluations of the effect of their institutional experience on traditional religious values (follow-up study)	☐	☐	☐	☐	☐	☐
7 _____	☐	☐	☐	☐	☐	☐
G. **Vocational Preparation.** (Illustrative goals in this area include offering specific occupational curriculums, programs geared to emerging or current career fields, opportunities for retraining or upgrading skills, and/or assistance to students in career planning.) **should be a goal**	☐	☐	☐	☐	☐	☐
1 Variety and quality of vocational and professional degree or certificate programs (institutional records)	☐	☐	☐	☐	☐	☐
2 Enrollments in vocational and professional degree programs (institutional records)	☐	☐	☐	☐	☐	☐
3 Graduates from vocational and professional degree programs (institutional records)	☐	☐	☐	☐	☐	☐
4 Existence of advisory committees, etc., to keep in contact with vocational and/or professional fields for which students are being prepared (institutional records)	☐	☐	☐	☐	☐	☐
5 Former students employed in their field of training within a given period of time after graduation (follow-up study)	☐	☐	☐	☐	☐	☐
6 Former student changes in employment over given time periods (follow-up study)	☐	☐	☐	☐	☐	☐
7 Initial and subsequent salaries of former students (follow-up study)	☐	☐	☐	☐	☐	☐
8 Professional awards and citations received by former students (follow-up study)	☐	☐	☐	☐	☐	☐
9 Student and/or former student satisfaction with vocational or professional training at the institution (follow-up study)	☐	☐	☐	☐	☐	☐
10 Employer satisfaction with former students vocational or professional training (institutional study)	☐	☐	☐	☐	☐	☐

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	APPROPRIATENESS					
	INAPPROPRIATE	LOW	BELOW AVERAGE	AVERAGE	ABOVE AVERAGE	HIGH
G **Vocational Preparation.** (continued)						
11 Student and/or former student perceptions and evaluations of the effectiveness of institutional career/placement counseling services (follow-up study)	☐	☐	☐	☐	☐	☐
12 _____	☐	☐	☐	☐	☐	☐
H **Advanced Training.** (Illustrative goals in this area include the availability of post-graduate education, developing and maintaining a strong and comprehensive graduate school, providing programs in the professions, and/or conducting advanced study in specialized problem areas.)						
should be a goal	☐	☐	☐	☐	☐	☐
1 Evaluations of the quality of institutional graduate and professional programs (current rating system)	☐	☐	☐	☐	☐	☐
2 Institutional faculty and student ratings of the quality of institutional graduate programs (institutional study)	☐	☐	☐	☐	☐	☐
3 Annual expenditures devoted to research, support of graduate students, etc. (institutional study)	☐	☐	☐	☐	☐	☐
4 Awards for advanced study made to students, former students, and/or faculty, e.g., Woodrow Wilson fellowships, Fullbright scholarships, Rhodes scholarships (institutional study)	☐	☐	☐	☐	☐	☐
5 Scholarly works produced by graduate students and/or former graduate students considered suitable for publication (institutional study)	☐	☐	☐	☐	☐	☐
6 Student and/or former student evaluations and/or perceptions of the quality of their advanced training experience (follow-up study)	☐	☐	☐	☐	☐	☐
7 Ratings of graduate faculty and programs (national assessment agency records)	☐	☐	☐	☐	☐	☐
8 _____	☐	☐	☐	☐	☐	☐
I **Research.** (Illustrative goals in this area include contract studies for external agencies, conducting basic research in the natural and social sciences, and/or seeking generally to extend the frontiers of knowledge.)						
should be a goal	☐	☐	☐	☐	☐	☐
1 The dollar amount of research grants and contracts received by the institution (institutional records)	☐	☐	☐	☐	☐	☐
2 Basic research publications or other results of scholarly effort produced by students or faculty members during the past year (institutional study)	☐	☐	☐	☐	☐	☐
3 Assignable square feet of laboratory space assigned to research activities for students and/or faculty (institutional records)	☐	☐	☐	☐	☐	☐
4 Reception and value of patents, copyrights, awards, citations, etc., by students, former students, and/or faculty members as a result of research efforts (institutional study)	☐	☐	☐	☐	☐	☐
5 Faculty time devoted to research activities (faculty activity survey)	☐	☐	☐	☐	☐	☐
6 Citations of basic research publications in bibliographies of other authors (institutional study)	☐	☐	☐	☐	☐	☐
7 Article reprints sought (institutional study)	☐	☐	☐	☐	☐	☐
8 Use of faculty production of scholarly efforts for awarding salaries and promotions (institutional study)	☐	☐	☐	☐	☐	☐
9 _____	☐	☐	☐	☐	☐	☐
J **Meeting Local Needs.** (Illustrative goals in this area include providing for continuing education for adults, serving as a cultural center for the community, providing trained manpower to local employers, and/or facilitating faculty and student involvement in community-service activities.)						
should be a goal	☐	☐	☐	☐	☐	☐
1 Participation by senior citizens in courses offered by the institution (institutional records)	☐	☐	☐	☐	☐	☐
2 Off-campus persons served by institutional extension services (institutional records)	☐	☐	☐	☐	☐	☐

INSTRUCTIONS:

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	APPROPRIATENESS					
	INAPPROPRIATE	LOW	BELOW AVERAGE	AVERAGE	ABOVE AVERAGE	HIGH
J **Meeting Local Needs.** (continued)						
3 Institutional sponsorship of seminars, conferences, workshops, etc., for high school students, teachers, parents, etc. (institutional records)	☐	☐	☐	☐	☐	☐
4 Attendance by persons from the community at selected cultural and/or recreational events (institutional study)	☐	☐	☐	☐	☐	☐
5 Amount of release time granted to faculty members for community service (institutional records)	☐	☐	☐	☐	☐	☐
6 Annual operating expenditures devoted to specific extension services (institutional records)	☐	☐	☐	☐	☐	☐
7 Existence of cooperative institutional/community planning efforts to identify and meet local needs (institutional study)	☐	☐	☐	☐	☐	☐
8 Evaluations and perceptions of members of the community regarding the quality of institutional services available to them (institutional study)	☐	☐	☐	☐	☐	☐
9 Participation of "nontraditional" students in institutional programs and activities (institutional records)	☐	☐	☐	☐	☐	☐
10 _____	☐	☐	☐	☐	☐	☐
should be a goal	☐	☐	☐	☐	☐	☐
K **Public Service.** (Illustrative goals in this area include working with governmental agencies in social and environmental policy formation, committing institutional resources to the solution of major social and environmental problems, training people from disadvantaged communities, and/or generally being responsive to regional and national priorities in planning educational programs.)						
1 Course offerings pertaining to local, state, regional, and/or national problems or issues (institutional study)	☐	☐	☐	☐	☐	☐
2 Receipt and value of contracts and grants addressing national, state, and/or regional priorities and issues (institutional study)	☐	☐	☐	☐	☐	☐
3 Individuals not associated with the institution served by a particular institutional support program (institutional study)	☐	☐	☐	☐	☐	☐
4 Creation and funding of agencies within the institution to provide specific public services (institutional records)	☐	☐	☐	☐	☐	☐
5 _____	☐	☐	☐	☐	☐	☐
should be a goal	☐	☐	☐	☐	☐	☐
L **Social Egalitarianism.** (Illustrative goals in this area include open admissions and suitable education for all admitted, providing educational experiences appropriate to the evolving interest of minority groups and women, and/or offering remedial work in basic skills.)						
1 Characteristics of the student body and graduates from the institution, e.g., by categories of race, sex, and age (institutional records)	☐	☐	☐	☐	☐	☐
2 Ratings of students, former students, and/or faculty of campus environment with regard to social egalitarianism (institutional study)	☐	☐	☐	☐	☐	☐
3 Existence of special courses and programs to meet the needs of particular groups of students (institutional records)	☐	☐	☐	☐	☐	☐
4 Efforts to prepare faculty to work with educationally disadvantaged students (institutional records)	☐	☐	☐	☐	☐	☐
5 Recruitment of minority and educationally disadvantaged students (institutional study)	☐	☐	☐	☐	☐	☐
6 _____	☐	☐	☐	☐	☐	☐
should be a goal	☐	☐	☐	☐	☐	☐
M **Social Criticism/Activism.** (Illustrative goals in this area include providing criticisms of prevailing American values, offering ideas for changing social institutions judged to be defective, helping students learn how to bring about change in American society, and/or being engaged, as an institution, in working for basic changes in American society.)						

INSTRUCTIONS:

1. Please rate the **appropriateness** of **each goal area** in terms of the extent to which it **should be a goal** for your institution.
2. Then, please rate each **measure** in terms of its **appropriateness** as **evidence of progress** toward the achievement of that goal area.

APPROPRIATENESS

	INAPPROPRIATE	LOW	BELOW AVERAGE	AVERAGE	ABOVE AVERAGE	HIGH
M **Social Criticism/Activism.** (continued)						
1 Participation of faculty, students, and/or former students in local, regional, or national political organizations (institutional study)	☐	☐	☐	☐	☐	☐
2 Utilization by students and/or former students of mechanisms (e.g., voting, petitions) of the political process (institutional study)	☐	☐	☐	☐	☐	☐
3 Participation of students and/or former students in the last general election (follow-up study)	☐	☐	☐	☐	☐	☐
4 Elected positions held by students and/or former students (follow-up study)	☐	☐	☐	☐	☐	☐
5 Participation in social, charitable, political, or civic organizations by faculty, students, and/or former students (follow-up study)	☐	☐	☐	☐	☐	☐
6 _____	☐	☐	☐	☐	☐	☐
N **Freedom.** (Illustrative goals in this area include protecting the right of faculty to present controversial ideas in the classroom, not preventing students from hearing controversial points of view, placing no restrictions on off-campus political activities by faculty, and/or ensuring faculty and students the freedom to choose their own life styles.)	**should be a goal** ☐	☐	☐	☐	☐	☐
1 Faculty and student ratings of campus environment relative to freedom to teach and learn (institutional study)	☐	☐	☐	☐	☐	☐
2 Perceptions and evaluations by faculty of specifically identified economic, philosophical, political, and social beliefs (institutional study)	☐	☐	☐	☐	☐	☐
3 Institutional policies and procedures developed to protect the exercise of academic freedom by faculty and students (institutional study)	☐	☐	☐	☐	☐	☐
4 _____	☐	☐	☐	☐	☐	☐
O **Democratic Governance.** (Illustrative goals in this area include decentralized decision-making arrangements by which students, faculty, administrators, and governing board members can all be significantly involved in campus governance; opportunity for individuals to participate in all decisions affecting them; and/or governance that is genuinely responsive to the concerns of everyone at the institution.)	**should be a goal** ☐	☐	☐	☐	☐	☐
1 Faculty, student and administrative ratings of institutional governance environment (institutional study)	☐	☐	☐	☐	☐	☐
2 Faculty, student, and administrative assessments of participation of groups external to the institution in institutional decision making (institutional study)	☐	☐	☐	☐	☐	☐
3 Attendance and participation by faculty in the faculty senate or similar body (institutional study)	☐	☐	☐	☐	☐	☐
4 _____	☐	☐	☐	☐	☐	☐
P **Community.** (Illustrative goals in this area include maintaining a climate in which there is faculty commitment to the general welfare of the institution, open and candid communication, open and amicable airing of differences, and/or mutual trust and respect among students, faculty, and administrators.)	**should be a goal** ☐	☐	☐	☐	☐	☐
1 Faculty and staff perceptions and evaluations of internal morale (institutional study)	☐	☐	☐	☐	☐	☐
2 Faculty and student perceptions and evaluations of social interaction at the institution (institutional study)	☐	☐	☐	☐	☐	☐
3 Faculty, staff, and student assessments of the pervading administrative style at the institution (standardized instruments)	☐	☐	☐	☐	☐	☐
4 Faculty, staff, and student assessments of the organizational health of the institution (standardized instruments)	☐	☐	☐	☐	☐	☐

INSTRUCTIONS:

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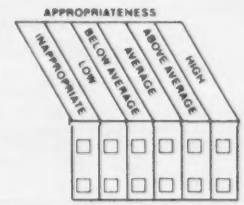
2. Then, please rate each **measure** in terms of its **appropriateness** as **evidence of progress** toward the achievement of that goal area.



P **Community.** (continued)

5 Faculty participation in faculty senate, faculty council, and other meetings devoted to overall institutional matters (institutional study)

6 _____

Q **Intellectual/Aesthetic Environment.** (Illustrative goals in this area include a rich program of cultural events, a campus climate that facilitates student free-time involvement in intellectual and cultural activities, an environment in which students and faculty can easily interact informally, and /or a reputation as an intellectually exciting campus.)

1 Existence of museums, galleries, planetariums, etc., on campus (institutional records)

2 Availability of cultural performances (institutional records)

3 Students and/or faculty attendance at cultural activities sponsored by the institution (institutional study)

4 Faculty and student evaluations of the intellectual/aesthetic climate of the institution (institutional study)

5 The use of books, records, tapes, and other library materials by students and faculty (institutional records)

6 _____

R **Innovative Climate.** (Illustrative goals in this area include a climate in which continuous innovation is an accepted way of life, established procedures for readily initiating curricular or instructional innovations, and/or experimentation with new approaches to individualized instruction and to evaluating and grading student performance.)

1 Amount of faculty time devoted to curriculum design and/or course improvement (faculty activity surveys)

2 Student evaluations of the currency and relevance of course materials (institutional study)

3 Receipt of research contracts pertaining to curriculum design, course improvement, instructional innovation, and new evaluative approaches (institutional study)

4 Impacts of modifications made in courses and programs (institutional study)

5 Recognition through the reward system of faculty innovation efforts (institutional study)

6 The development of films, taped lectures, etc., by faculty (institutional study)

7 Generation of credits through nontraditional courses and programs (institutional records)

8 _____

S **Off-Campus Learning.** (Illustrative goals in this area include time away from the campus in travel, work-study, VISTA, etc.; study on several campuses during undergraduate programs; awarding degrees for supervised study off the campus; and/or awarding degrees entirely on the basis of performance on an examination.)

1 Existence of off-campus instructional programs (institutional records)

2 Credits (or their equivalent) earned in off-campus work (institutional records)

3 Participation of graduating students in formal off-campus learning activities (institutional records)

4 Degrees awarded on the basis of study away from the campus (institutional records)

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	APPROPRIATENESS					
	INAPPROPRIATE	LOW	BELOW AVERAGE	AVERAGE	ABOVE AVERAGE	HIGH
S **Off-Campus Learning.** (Continued)						
5 Evidence of degrees awarded entirely on the basis of performance on an examination (institutional records)	☐	☐	☐	☐	☐	☐
6 Use by the institution of advanced placement, CLEP, etc., as a basis for granting college credit (institutional records)	☐	☐	☐	☐	☐	☐
7 _____	☐	☐	☐	☐	☐	☐
should be a goal	☐	☐	☐	☐	☐	☐
T **Accountability/Efficiency.** (Illustrative goals in this area include use of cost criteria in deciding among program alternatives, concern for program efficiency, accountability to funding sources for program effectiveness, and/or regular submission of evidence that the institution is achieving stated goals.)						
1 Availability and use of cost information for academic programs and disciplines (institutional records)	☐	☐	☐	☐	☐	☐
2 Availability and use of an institutional management information system (institutional records)	☐	☐	☐	☐	☐	☐
3 Employer satisfaction with the graduates of the institution (institutional study)	☐	☐	☐	☐	☐	☐
4 Satisfaction of students and former students with the extent and nature of their educational experience and subsequent employment (institutional study)	☐	☐	☐	☐	☐	☐
5 Assessments by clients, consultants, and other outside evaluators of the quality and value of research outputs (institutional study)	☐	☐	☐	☐	☐	☐
6 _____	☐	☐	☐	☐	☐	☐

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